



CDC INFLUENZA PANDEMIC OPERATION PLAN (OPLAN)

11 JULY 2007



**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**

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This CDC Influenza Pandemic OPLAN is an INTERNAL document that provides guidance for CDC operations as directed by the Director, Centers for Disease Control and Prevention.

This plan is made available to outside agencies for the sole purpose of providing an understanding of the internal processes within CDC. This document in no way prescribes guidance for any entity other than CDC agencies.

This plan shall not be construed to alter any law, executive order, rule, regulation, treaty, or international agreement. Noncompliance with this plan shall not be interpreted to create a substantive or procedural basis to challenge agency action or inaction.





CDC INFLUENZA PANDEMIC OPLAN RECORD OF REVISIONS

The attached CDC Influenza Pandemic OPLAN will require updates and be affected by changes as the Pandemic condition evolves. The Plans, Training, Information, and Exercise (PTIE) Section of the Division of Emergency Operations (DEO) is responsible for the maintenance of the OPLAN, as well as the Record of Changes below. The PTIE Section will review the OPLAN quarterly for currency.

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The Record of Changes below is an official record of changes to the OPLAN. This record will be reconciled with the OPLAN quarterly by the PTIE Section, DEO.

CDC Influenza Pandemic OPLAN Record of Changes		
Date	Change Description	Change Entered by
21 Jun 2006	Final Draft	
12 Sep 2006	Change 1	
20 Dec 2006	Change 2	
20 Mar 2007	Change 3	
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EXECUTIVE SUMMARY

Influenza viruses have threatened the health of animal and human populations for centuries. Their diversity and propensity for mutation have thwarted our efforts to develop both a universal vaccine and highly effective antiviral drugs. A pandemic occurs when a novel strain of influenza virus emerges that has the ability to infect and be passed efficiently between humans. Because humans have little immunity to the new virus, a worldwide epidemic, or pandemic, can ensue. Once a pandemic begins, it cannot be stopped easily. However, it can be slowed, giving the U. S. time to prepare and/or time to develop and distribute antiviral drugs, vaccines and other countermeasures to mitigate the effects of a pandemic. The pandemic threat we now face is a new influenza strain, the Influenza A (H5N1). It is currently spreading throughout bird populations across Asia, Africa and Europe, infecting domesticated birds, including ducks and chickens and long-range migratory birds. Since late 2003 this virus has infected over 318 people in the Eastern Hemisphere with a mortality rate of over 60 per cent. Thus far, human to human transmission has been limited.

This Executive Summary describes the Centers for Disease Control and Prevention (CDC) Influenza Pandemic Operation Plan (OPLAN), a plan that delineates how CDC, as a subordinate operating division (OPDIV) of the Department of Health and Human Services (HHS), will prepare for and fight this potentially devastating outbreak of infectious disease for our Nation, and the world.

Information provided in this OPLAN is intended as directive guidance for subordinate CDC organizations but will assist responsible individuals and others at all levels outside CDC to understand operational planning. All OPLANS need to be comprehensive enough to be used as guides for day-to-day operations, once an influenza pandemic appears anywhere in the world. This OPLAN is designed to allow the planners at every level within CDC to gain insights into “what” actions need to be taken in preparing for an influenza pandemic. The “how” to carry out these actions is left for the Subject Matter Experts (SMEs) selected to review and take actions articulated in this plan. Only the SMEs have the scientific and technical expertise necessary to determine all the actions and steps necessary to mitigate the deadly effects of an influenza pandemic. CDC’s myriad tasks outlined in this OPLAN are simply a starting point for the tremendous effort needed for a successful response to the devastating global effects of a 1918-1919 like pandemic.





The OPLAN is divided into 5 paragraphs with 15 annexes containing information necessary for detailed planning, preparedness and response to an influenza pandemic.

PARAGRAPH 1. SITUATION describes the current worldwide influenza situation and provides descriptions of previous pandemics that killed millions of people globally. As philosopher George Santayana once said, “Those who cannot remember the past are condemned to repeat it.” This paragraph also lists the Director’s planning assumptions that were necessary in order to write the plan.

CDC ASSUMPTIONS.

1. The initial responsibility for a domestic pandemic response rests with state, local, territorial, and tribal (SLTT) authorities.
2. A pandemic will increase the likelihood of sudden and potentially significant gaps in public services and safety.
3. A severe pandemic will overwhelm existing healthcare capacities in the U.S. and result in a large number of deaths.
4. The CDC Director can increase the response posture of the Director’s Emergency Operations Center (DEOC) at any time. For planning purposes it is assumed it will be manned at the “Alert Mode” upon declaration of World Health Organization (WHO) Phase 4 and United States Government (USG) Stage 2.
5. Under certain scenarios included within WHO Phases 4 - 6 (USG Stages 2-6), some of the usual functions and activities within CDC will be significantly reduced or ceased in order to permit a “surge” to accomplish CDC’s essential pandemic functions and public health responsibilities and, within organizational capabilities, to support critical SLTT public health functions.
6. Containment allocations of antiviral drugs may be pre-deployed to international locations or staged and stored in the United States. Up to 5% of the SNS total will be earmarked for international containment and shipped, as directed, by HHS/CDC.
7. Increased public anxiety will cause increased psychogenic and stress-related illness compounding the strain on health facilities.





8. A significant number of non-citizens as well as uninsured U. S. citizens will require medical and public health intervention.
9. Public Health Service (PHS) commissioned corps personnel serving in critical CDC positions will remain assigned and available to CDC during an influenza pandemic.
10. PHS commissioned corps personnel from other HHS agencies will be available to reinforce CDC's capability under ESF #8 to provide public health services.

PARAGRAPH 2. The CDC MISSION is to immediately detect the onset of outbreaks with influenza pandemic potential; assist the containment of such outbreaks; delay the introduction and transmission of pandemic viruses in the United States; and assist SLTT health authorities in the management of an influenza pandemic event.

PARAGRAPH 3. EXECUTION describes the Director's intent (included below), which is the CDC Director's vision and how outcomes are to be measured. Concept of the Operation explains the conditions under which the plan was written. This OPLAN was written using the World Health Organization's (WHO) periods and phases, overlaid on the United States stages developed by the Homeland Security Council (HSC). Actions assigned to CDC by HHS from the HSC Implementation Plan are assigned to the appropriate CC/CO or NIOSH. Critical tasks, derived from actions assigned by HSC and HHS or from CDC's own mission analysis, are arranged by WHO periods and phases as well as the U.S. stages indicating what must be accomplished during each of the periods ending with the pandemic.





DIRECTOR'S INTENT

“Influenza pandemic has the potential to represent the worst-case scenario of any public health emergency. The influenza pandemic, which occurred in 1918-1919, demonstrated that influenza could kill millions of people world-wide, cause societal disruption on an unprecedented scale, and disrupt economies. Despite medical and technological advances since 1918, increased global population size and movement suggest that new pandemics could cause similar effects. My intent is to use this operations plan to provide direction and guidance to CDC organizations to help the United States Government and the Department of Health and Human Services prepare, mitigate, respond to and recover from a public health emergency of this magnitude. I intend to use the entire spectrum of resources available to the Centers for Disease Control and Prevention (CDC) as necessary. CDC will operate under the National Incident Management System and will coordinate with international, Federal and State partners to ensure a rapid and coordinated response. I consider the indicators of success to be: 1) early recognition and reporting of a human outbreak through the use of global and domestic disease surveillance resources; 2) rapid assistance with the necessary resources and actions to contain outbreaks and reduce and delay further spread of the disease; 3) when available, the adequate and successful provision of vaccine to provide prophylaxis to at risk populations; 4) the adequate and successful provision of antiviral medications to treat affected populations. As the director, I remain wholly and fully committed to the health and well-being of this nation. ”

PARAGRAPH 4. SUPPORT SERVICES describes how CDC will provide internal support during an influenza pandemic.

PARAGRAPH 5. MANAGEMENT AND COMMUNICATIONS describes actions of the Director's Emergency Operations Center (DEOC). The DEOC is the CDC fusion point for all information, situation awareness, actions, and decisions related to response and recovery efforts in an influenza pandemic. This fusion includes the knowledge management of critical and diverse information from surveillance systems and analysis activities from the Emergency Support Function (ESF) #8 (Public





Health and Medical Services) sector, and other National Response Plan (NRP) partners, for analysis and timely decision making.

ANNEXES and their **APPENDIXES** further describe in detail the planning background and actions necessary for successful response and mitigation of the effects of a pandemic. For example, Annex A describes three different modes for the DEOC as it progresses from a daily “watch mode” through the “alert mode” to a full “response mode” to an influenza pandemic. Annex B describes the disease surveillance systems and the critical information requirements needed from CDC to support HHS, DHS other United States Government (USG) agencies, and SLTT governments with the necessary knowledge to launch a coordinated response to an influenza pandemic. In accordance with the NRP, CDC, during a pandemic influenza event, will be a supporting organization to the DHS and the DHHS. The Assistant Secretary for Preparedness and Response (HHS/ASPR) has been designated as the lead for the National ESF #8 response and recovery coordination efforts. The CDC Influenza Pandemic OPLAN supports this ESF #8 mission.





1. SITUATION

a. THE INFLUENZA PANDEMIC THREAT.

- 1) Influenza viruses have threatened the health of animal and human populations for centuries. Their genetic and antigenic diversities and their ability to change rapidly due to genetic reassortment and mutations make it very difficult to develop a universal vaccine and highly effective antiviral drugs.
- 2) A pandemic occurs when a novel strain of influenza virus emerges with the ability to infect and efficiently spread among humans. Because humans lack immunity to the new virus, a worldwide epidemic, or pandemic can result. Each of the three pandemics in the last century resulted in the infection of approximately 30 percent of the world population and the death of from 0.2 percent to 2 percent of those infected.
- 3) Avian viruses were involved in all three 20th century pandemics. The 1918 pandemic is generally regarded as the deadliest disease event in recorded human history. The current pandemic threat arises from an outbreak of highly pathogenic avian influenza (HPAI) H5N1 in birds. In 1997, the H5N1 avian influenza virus appeared in poultry in Hong Kong and infected 18 people resulting in 6 deaths. Since then, the virus has spread among domestic and wild bird populations in Asia, Europe, and Africa resulting in the loss of over 200 million birds. Moreover, the virus can infect other animals, including long-range migratory birds, pigs, cats, and humans. Evidence strongly indicates that HPAI H5N1 is now endemic in parts of Asia, having established a permanent ecological niche in poultry.
- 4) To date, there are more than 318 confirmed cases of human H5N1 infection from twelve countries with a case-fatality rate of over 60%. This avian virus has met all prerequisites for the start of a pandemic except one: the ability to spread efficiently and in a sustained manner among humans. The high mortality is in part due to a lack of prior immunity to the virus and the ability of H5N1 to cause highly lethal primary viral pneumonia and acute respiratory distress syndrome (ARDS). It is reasonable to expect that either the H5N1 or another HPAI virus will emerge and cause an influenza pandemic.



**b. POTENTIAL GLOBAL IMPACT OF PANDEMIC INFLUENZA (PI).**

- 1) All nations face considerable challenges in mounting an unprecedented, coordinated global response to an influenza pandemic. Once a fully transmissible virus emerges, its global spread is considered inevitable. Countries might, through measures such as border closures and travel restrictions, delay arrival of the virus, but cannot stop it. Pandemics of the previous century encircled the globe in 6 to 9 months, even when much of international travel was limited to ship or rail. Given the speed and volume of international air travel today, the virus could spread more rapidly, possibly reaching all continents in weeks or months.
- 2) Widespread illness will occur. Infection and illness rates are expected to be higher than during seasonal epidemics of normal influenza. It is estimated that a substantial percentage of the world's population will require some form of medical care.
- 3) Drugs and vaccine will be in great demand; however supplies of vaccines and antiviral drugs, the two most important medical interventions for reducing illness and deaths during an influenza pandemic, will be inadequate in all countries at the start of a pandemic and for many months thereafter. Effective vaccines cannot currently be produced in anticipation of a pandemic virus. Inadequate supplies of vaccines are of particular concern, as vaccines are generally considered the best countermeasure for protecting populations. Many resource poor countries may have no access to vaccines throughout the duration of a pandemic and have very limited supplies of infection control and supportive care materiel. Even countries with large investments in healthcare and public health infrastructures will face the challenges of scarce resources in an atmosphere of extreme demands.
- 4) The number of deaths during influenza pandemics has varied greatly. Death rates are largely determined by four factors: the number of people who become infected, the virulence of the virus, the underlying characteristics and vulnerability of affected populations, and the effectiveness of clinical interventions and preventive measures. Within some countries those who do not receive effective medical care during inter-pandemic periods (e.g., low rates of influenza vaccine coverage) are likely to bear a disproportionate burden of excess deaths





from pandemic influenza. Accurate predictions of mortality cannot be made before the pandemic influenza virus emerges and begins to spread.

- 5) Economic and social disruption may be great. High rates of illness, hospitalization, and worker absenteeism are expected, and these will contribute to social and economic disruption. Social disruption may be greatest when rates of absenteeism impair essential services, such as healthcare, public safety, power, food supply, transportation, and communications.

c. POTENTIAL IMPACT ON THE UNITED STATES.

- 1) Despite annual vaccination programs and advanced medical technologies, an estimated 36,000 influenza deaths and 226,000 hospitalizations occur each year in the United States. Based on current models of disease transmission, a new pandemic could affect 30% of the U.S. population and result in the deaths of 200,000 to two million U. S. residents.
- 2) A pandemic's impact will extend far beyond human health. It will undermine many of the day-to-day functions within our society and thus could significantly weaken our economy and national security. Worker absentee rates (due to illness, care giving, exposure avoidance, etc.) are projected to reach 40% at the height of a pandemic. Businesses and government agencies must address how they will perform their essential tasks with a high rate of employee absenteeism.
- 3) The longer it takes for an influenza pandemic to begin, the more likely it is that its effects can be mitigated by informed citizens, prepared healthcare teams and public health systems, and proactive leaders. Ultimately, the center of gravity of the influenza pandemic response will be in communities where coordinated efforts will be essential. Refer to Annex B, Disease Intelligence
- 4) Because of poverty, household crowding, and higher prevalence of chronic conditions that suppress immunity, the incidence, complications, and mortality from pandemic influenza may be higher among some sectors of society than among others. During a pandemic, historically lower rates of flu vaccine coverage in these populations may become exacerbated by shortages. Efforts to distribute vaccines and antiviral drugs in such populations may be





hampered by deterioration in usual sources of medical care. Real or perceived injustice may impede the acceptance and effectiveness of isolation and quarantine measures. Moreover, if pandemic influenza starts outside the U. S., early imported cases might occur in immigrant communities with large numbers of undocumented persons, language barriers, and limited access to medical care. Although SLTT governments bear the primary responsibility for confronting these issues, the Centers for Disease Control and Prevention (CDC) and the Federal government are part of the national safety net that will assist local governments with preparing to mitigate deficiencies that are likely to occur at SLTT levels.

d. MISSION AND INTENT OF HIGHER AND SUPPORTING ORGANIZATIONS.

1) National Command Authority (NCA).

The National Strategy for Pandemic Influenza provides a framework for U. S. Government (USG) planning efforts that are consistent with the National Security Strategy and the National Strategy for Homeland Security. It recognizes that preparing for and responding to an influenza pandemic cannot be viewed as a purely Federal responsibility, and that the nation must have a system of plans at all levels of government and in all sectors outside of government that can be integrated to address the influenza pandemic threat. The Strategy provides a high-level overview of the approach that the USG will take to prepare for and respond to an influenza pandemic. In addition, it shows how non-Federal entities are expected to prepare their communities and makes it clear that communities will be the center of gravity in an influenza pandemic.

The Homeland Security Council Implementation Plan for the National Strategy for Pandemic Influenza states that it is the policy of the Federal Government to initiate pandemic response actions at WHO Phase 4, when epidemiological evidence of two generations of human-to-human transmission of a new influenza virus is documented anywhere in the world. This Operation Plan is in conformity with the Implementation Plan.

The USG will collaborate fully with international partners to contain a potential pandemic wherever sustained and efficient human-to-human transmission is documented, and will make every reasonable effort to delay the introduction of pandemic influenza into the





United States. Once these efforts have been exhausted, responding effectively to an uncontained influenza pandemic domestically will require the full participation of all levels of government and all segments of society. Federal agencies must be prepared to supplement and support state and local efforts when directed.

2) Department of Homeland Security (DHS):

Pursuant to Homeland Security Presidential Directive-5 (HSPD-5), the Secretary of Homeland Security, as the principal Federal official for domestic incident management is responsible for coordinating Federal operations within the United States to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. DHS provides leadership in coordinating and integrating the National Incident Management System (NIMS) to implement the National Response Plan (NRP). Additionally, the Secretary, DHS is responsible for coordinating all Federal emergency support functions, resource allocation, establishing reporting requirements, and conducting ongoing communications with Federal and SLTT governments, the private sectors and Non-Governmental Organizations (NGOs). DHS ensures the integrity of the nation's infrastructure, domestic security, entry and exit screening for influenza at borders, facilitates coordination of the overall response to an influenza pandemic, and provides a common operating picture for all USG departments and agencies. It is also responsible for the National Joint Information Center (JIC). CDC, in coordination with the Department of Health and Human Services, Office of the Secretary (HHS/OS), will participate in contingency planning and exercises, to include as a minimum Strategic National Stockpile (SNS) deployment of medical/non-medical assets, quarantine, and SLTT influenza pandemic readiness. During an influenza pandemic, CDC Senior Management Officials (SMOs), or a designated deployed CDC official, will be responsible for and coordinate actions of all personnel deployed by CDC to a state under the guidance of the DHHS Incident Response Coordination Team (IRCT). Refer to Figure 3 (Chart of Influenza Pandemic Authority and Responsibilities) to Annex D





3) Department of Health and Human Services (HHS).

In accordance with the Pandemic and All-Hazards Preparedness Act (2006), the Secretary of Health and Human Services shall lead all Federal public health and medical response to public health emergencies and incidents covered by the National Response Plan. The National Response Plan (NRP) designates the Secretary of the Department of Health and Human Services (HHS), principally through the Assistant Secretary for Preparedness and Response (ASPR), as the primary coordinator for Emergency Support Function ESF #8 (Public Health and Medical Services). The Secretary of HHS will lead Federal health and medical services response efforts and will be the principal Federal spokesperson for public health issues, coordinating closely with DHS on public information pertaining to the influenza pandemic. Each HHS component must prepare, maintain, update and exercise an operational plan that assigns specific roles and responsibilities in the event of an influenza pandemic. Preparedness must be a shared and coordinated responsibility. CDC will closely coordinate all actions, as appropriate, with the following staff divisions (STAFFDIVs) of the Office of the Secretary and Operating Divisions (OPDIVs) of HHS:

a) Assistant Secretary for Preparedness and Response (ASPR)

The Assistant Secretary for Preparedness and Response serves as the Secretary's principal advisor on matters related to bioterrorism and other public health emergencies. ASPR also coordinates interagency activities between HHS, other Federal departments, agencies, offices and State and local officials responsible for emergency preparedness and the protection of the civilian population from acts of bioterrorism and other public health emergencies. Within HHS, ASPR is responsible for overall coordination of avian and pandemic influenza efforts.

b) Assistant Secretary for Public Affairs (ASPA)

The Assistant Secretary for Public Affairs serves as the Secretary's principal counsel on public affairs matters, conducts a national public affairs program, provides centralized leadership and guidance for public affairs activities within HHS' staff and operating





divisions and regional offices, and administers the Freedom of Information and Privacy Act.

c) Office of Global Health Affairs (OGHA)

The Director of the Office of Global Health Affairs represents HHS to other governments, other Federal departments and agencies, international organizations, and the private sector on international and refugee health issues and facilitates cooperation by Public Health Services Operating Divisions with the Agency for International Development.

d) Administration for Children and Families (ACF)

Administration for Children and Families advocates for the well-being of children and families and supports human services for and education of this population sector pertaining to pandemic influenza. CDC supports ACF and its constituency through risk reduction messages, guidance to pediatric and family medicine providers, and antiviral drugs and pandemic vaccine for vulnerable populations.

e) The Agency for Healthcare Research and Quality (AHRQ)

The Agency for Healthcare Research and Quality supports public health partners on mass vaccination planning and healthcare sector surge capacity planning. CDC will support AHRQ with specialized pandemic influenza guidance.

f) Administration on Aging (AOA)

Administration on Aging advocates for the safety of, well-being of, and access to services for older Americans through support of various service providers and networks. CDC influenza pandemic guidance and risk reduction messages applicable to older Americans will be used by AOA.

g) Centers for Medicare and Medicaid Services (CMS)

Centers for Medicare and Medicaid Services support healthcare payment mechanisms to providers for the care of high-risk, vulnerable, and disadvantaged populations and older Americans. CDC supports the CMS mission during a pandemic by informing providers





on best practices for preventing influenza and treating ill persons and by distributing reduction messages for CMS constituents.

h) Food and Drug Administration (FDA)

Food and Drug Administration regulates, licenses, and approves vaccines, antiviral drugs, and diagnostic tests for pandemic influenza. CDC SMEs collaborate with and support FDA in developing a safe and effective pandemic vaccine, antiviral drugs, and diagnostic tests.

i) Health Resources and Services Administration (HRSA)

Health Resources and Services Administration provides planning guidance and technical assistance on influenza pandemic preparedness to the healthcare sector. CDC and HRSA work together to help the public health and patient care sectors plan for and respond to an influenza pandemic.

j) Indian Health Service (IHS)

Indian Health Service supports pandemic influenza health care services for American Indians and Alaskan Natives. CDC supports IHS with risk reduction messages, patient care guidance, and medical interventions.

k) National Institutes of Health (NIH)

National Institutes of Health conduct basic and clinical research to develop new drugs, vaccines, and diagnostic tests for pandemic influenza and to understand the pathophysiology of influenza viruses. CDC SMEs collaborate with and support NIH efforts in developing safe and effective pandemic vaccine, antiviral drugs, and diagnostic tests.

l) Substance Abuse and Mental Health Services Administration (SAMHSA)

Substance Abuse and Mental Health Services Administration supports SLTT substance abuse and mental health agencies' response to an influenza pandemic and provides guidance to reduce anxiety and stress in the general population due to the threat and impact of pandemic influenza. CDC supports SAMHSA through the development of





influenza pandemic risk reduction messages that are applicable to various populations. CDC and SAMHSA work together on responder resiliency issues.

4) Other Departments, Agencies and Organizations.

a) Department of Agriculture (USDA):

USDA conducts surveillance for influenza in livestock, including poultry, and for the domestic veterinary response to a virus with pandemic potential. The Department will determine which animal products or live animals have the potential for introducing or spreading a pandemic virus. Also, they will decide which live animals must undergo USDA-supervised quarantine and health examination prior to final entry into the U. S. USDA ensures the commercial food supplies derived from poultry and egg products are not contaminated or adulterated. USDA, in coordination with Department of the Interior (DOI), monitors wild bird and animal populations throughout the U. S. for indications of viral activity. CDC coordination with USDA is required to assist in identifying, sequencing, and confirming laboratory findings and containment efforts as required.

b) Department of Commerce (DOC):

In coordination with DHS, DOC will work with private sector, research, academic, and government organizations to promote critical infrastructure efforts, including using its authority under the Defense Production Act to ensure the timely availability of industrial products, vaccines, antiviral drugs, materials, and services to meet homeland security requirements. DOC coordinates as needed with HHS/CDC to expedite export licenses of strains, test kits/equipment, and technology to specified destinations in order to allow rapid identification of strains, and provide on ground support to contain/mitigate a pandemic. CDC works with DOC and its governmental, non-governmental, business, and alliance partners to ensure influenza pandemic planning includes all critical entities to minimize the economic impact of the pandemic.





c) Department of Defense (DOD):

DOD currently conducts medical surveillance and detection domestically and abroad in coordination principally with HHS and CDC. DOD will provide support in response to an influenza pandemic when directed by the President or upon approval by the Secretary of Defense of a request from a Federal department or agency. This assistance may include support to both containment and stability operations. CDC works with DOD to plan and coordinate epidemiological surveillance, quarantine enforcement, laboratory surge, and support for SNS transportation and security when required to minimize travel disruptions and consequent impact on economic activity.

d) Department of the Interior (DOI):

DOI, in coordination with USDA, monitors wild bird and animal populations throughout the U. S. for indications of viral activity. It provides permits and inspects wildlife and wildlife products being imported and exported into and out of the United States. DOI enforces and publicizes wildlife border controls and, if appropriate, utilizes its permitting authorities to restrict the import or export of wild birds. CDC works with DOI to identify and/or to confirm a pandemic influenza virus.

e) Department of Labor (DOL):

DOL in conjunction with HHS and other sector-specific agencies works with the private sector to develop and disseminate information to promote the health and safety of personnel performing essential functions. CDC will assist DOL as required to provide policy guidance related to worker safety.

f) Department of State (DOS):

DOS coordinates with foreign governments and international and non-governmental organizations on all efforts pertaining to an international AI response. These efforts include ensuring that other nations join us in our efforts to contain or slow the spread of a pandemic influenza virus, limiting the adverse impacts on trade and commerce, and coordinating our efforts to assist other nations that are affected by the pandemic. CDC works with DOS to provide a coordinated, integrated, and prioritized influenza pandemic





plan in collaboration with the World Health Organization (WHO) and international partners. DOS/embassy must approve all CDC international travel. In an emergency, US embassy and OGHA staff can expedite this process.

g) Department of Transportation (DOT):

DOT coordinates transportation sector efforts and works to ensure that appropriate, coordinated actions are taken by the sector to limit spread and impact of an influenza pandemic while preserving the movement of essential goods and services. CDC will coordinate with DOT to ensure influenza planning includes quarantine measures that cover all transportation sectors and border stakeholders to delay the spread of influenza and its associated health effects.

h) Department of Education (ED):

ED coordinates with DHS and public and private education entities to collect and disseminate model influenza pandemic plans for adoption at the SLTT levels, information on exercises and training, and monitors and shares information on influenza pandemic impacts. CDC will coordinate with ED to ensure influenza planning at all levels to include SLTT information to schools, businesses, and private partners.

i) Department of the Treasury (TREAS):

TREAS monitors and evaluates the economic impacts of an influenza pandemic, helps formulate the economic policy response and advises on the likely economic impacts of containment/mitigation efforts. The Secretary of Treasury is also responsible for preparing policy responses to pandemic-related international economic developments; for example, leading the Federal Government's engagement with the multilateral development banks (MDB) and international financial institutions (IFI), including encouraging the MDB and IFI efforts to assist countries to address the impact of an influenza pandemic. CDC will work with TREAS to facilitate medical countermeasure production and procurement.





j) State, Local, Territorial, and Tribal (SLTT) Governments:

SLTTs will be the “centers of gravity” when responding to an influenza pandemic. They derive authority and responsibility to engage in public health from State constitutional requirements or equivalent territorial or tribal authorities. By pulling together business, healthcare, community, and faith-based organizations, they harness the power of the community in responding to an influenza pandemic.

k) World Health Organization (WHO):

WHO organizes global influenza surveillance world-wide through its network of collaborating centers, conducts outbreak investigations and coordinates rapid containment responses through the Global Outbreak and Response Network (GOARN), improves understanding of health and the economic burden of influenza, and develops pandemic preparedness planning guidance. The November 2005 WHO Global Influenza Preparedness Plan defined the phases of increasing public health risk associated with the emergence of a new influenza virus subtype that may pose a pandemic threat. CDC and the USG provide technical assistance and support to WHO as needed and requested in responding to an international influenza pandemic.

Refer to Table 1, Para 3. a.

e. PLANNING ASSUMPTIONS.

1) HHS Assumptions.

Refer to Part 1: Strategic Plan, HHS, Pandemic Influenza Plan.

2) CDC Assumptions.

- a) The initial responsibility for a domestic pandemic response rests with SLTT authorities.
- b) A pandemic will increase the likelihood of sudden and potentially significant gaps in public services and safety.
- c) A severe pandemic will overwhelm existing healthcare capacities in the U.S. and result in a large number of deaths.





- d) The Director, CDC can increase the response posture of the Director's Emergency Operations Center (DEOC) at any time. For planning purposes it is assumed it will be manned in the "Alert Mode" upon declaration of WHO Phase 4 and USG Stage 2.
- e) Under certain scenarios included within WHO Phases 4 - 6, (USG Stages 2-6) some of the usual functions and activities within CDC will be significantly reduced or ceased in order to permit a "surge" to accomplish CDC's essential pandemic functions and public health responsibilities and, within organizational capabilities, to support critical SLTT public health functions.
- f) Containment allocations of antiviral drugs may be pre-deployed to international locations or staged and stored in the United States. Up to 5% of the SNS total will be earmarked for international containment and shipped, as directed, by HHS/CDC.
- g) Increased public anxiety will cause increased psychogenic and stress-related illness compounding the strain on health facilities.
- h) A significant number of non-citizens as well as uninsured U. S. citizens will require medical and public health intervention.
- i) Public Health Service (PHS) commissioned corps personnel serving in critical CDC positions will remain assigned and available to CDC during an influenza pandemic.
- j) PHS commissioned corps personnel from other HHS agencies will be available to reinforce CDC's capability under ESF #8 to provide public health services.

f. CDC TASK ORGANIZATION.

Coordinating Centers/Coordinating Offices/National Institute For Occupational Safety And Health (CC/CO/NIOSH) will provide personnel, services and assistance to the Director's Emergency Operations Center (DEOC) in accordance with its mission statements in support of CDC operations initially upon declaration of WHO phase 4; USG stage 2, and throughout the duration of an influenza pandemic. Refer to Annex A (DEOC task organization).





2. MISSION.

CDC will immediately detect the onset of outbreaks with influenza pandemic potential; assist the containment of such outbreaks; delay the introduction and transmission of pandemic viruses in the United States; assist SLTT health authorities in the management of an influenza pandemic event.

3. EXECUTION

Director's Intent:

“Influenza pandemic has the potential to represent the worst-case scenario of any public health emergency. The influenza pandemic, which occurred in 1918-1919, demonstrated that influenza could kill millions of people world-wide, cause societal disruption on an unprecedented scale, and disrupt economies. Despite medical and technological advances since 1918, increased global population size and movement suggest that new pandemics could cause similar effects. My intent is to use this operations plan to provide direction and guidance to CDC Organizations to help the United States Government and the Department of Health and Human Services prepare, mitigate, respond to and recover from a public health emergency of this magnitude. I intend to use the entire spectrum of resources available to the Centers for Disease Control and Prevention (CDC) as necessary. CDC will operate under the National Incident Management System and will coordinate with international, Federal and State partners to ensure a rapid and coordinated response. I consider the indicators of success to be: 1) early recognition and reporting of a human outbreak through the use of global and domestic disease surveillance resources; 2) rapid assistance with the necessary resources and actions to contain outbreaks and reduce and delay further spread of the disease; 3) when available, the adequate and successful provision of vaccine to provide prophylaxis to at risk populations; 4) the adequate and successful provision of antiviral medications to treat affected populations. As the director, I remain wholly and fully committed to the health and well-being of this nation. ”



**a. CONCEPT OF OPERATIONS.**

The public health and medical services (ESF #8) response to an outbreak of pandemic influenza will be directed by HHS/OS in support of the DHS responsibility to manage the USG response. CDC is a subordinate OPDIV (Operating Division) of HHS and will be guided by the WHO phases and linked to the six USG stages (refer to table 1). CDC will use the full spectrum of its resources to accomplish assigned roles, responsibilities, functions, goals, and missions. Refer to Annex C (operations). See also Appendix 9 (phased scenarios) to Annex C (Operations) for a discussion of a range of functions and tasks CDC will conduct during the six different who phases.



Stages of Federal Government Response

			STAGE 2	STAGE 3	STAGE 4	STAGE 5
			Confirmed Human Outbreak Overseas	Widespread Outbreaks Overseas	First Human Case In North America	Spread Throughout United States
			GOALS Contain outbreak and limit potential for spread Activate domestic medical response	GOALS Delay emergence in North America Ensure earliest warning of first case(s) Prepare domestic containment and response mechanism	GOALS Contain first cases in North America Antiviral treatment and prophylaxis Implement national response	GOALS Support community response Preserve critical infrastructure Mitigation illness, suffering, and death Mitigate impact to economy and society
		STAGE 1	ACTIONS Declare Incident of National Significance	ACTIONS		ACTIONS
STAGE 0	Suspected Human Outbreak Overseas		Support international deployment of countermeasures	Activate domestic emergency medical personnel plans	ACTIONS	Maintains overall situational awareness
New Domestic Animal Outbreak in At-Risk Country	GOALS		Implement layered screening measures; activate domestic quarantine stations	Maintain layered screening measures at borders	Ensure pandemic plans activated across all levels	Evaluate epidemiology; provide guidance on community measures
GOALS	Rapidly investigate and confirm or refute		Prepare to limit domestic ports of entry	Deploy pre-pandemic vaccine and antiviral stockpiles; divert to monovalent vaccine production	Limit non-essential domestic travel	Deploy vaccine if available; prioritization guidance
Provide coordination, support, technical guidance	Coordination and logistical support		Prepare to produce monovalent vaccine	Real-time modeling; heighten hospital-based surveillance	Deploy diagnostic reagents for pandemic virus to all laboratories	Sustain critical infrastructure, support health and medical systems, maintain civil order
Track outbreaks to resolution	ACTIONS		POLICY DECISIONS	Prepare to implement surge plans at Federal medical facilities	Continue development of pandemic vaccine	Provide guidance on use of key commodities
Monitor for reoccurrence of disease	Initiate dialogue with WHO		Contribution to countermeasures for affected region	POLICY DECISIONS	Antiviral treatment and targeted antiviral prophylaxis	POLICY DECISIONS
ACTIONS	Deploy rapid response team		Entry/exit screening criteria; isolation/quarantine protocols	Prioritize efforts for domestic preparedness and response	POLICY DECISIONS	Federal support of critical infrastructure and availability of key goods and services
Support coordinated international response	Amplify lab-based and clinical surveillance to region		Diversification of trivalent vaccine production to monovalent		Revision of prioritization and allocation scheme for pandemic vaccine	Lifting of travel restrictions
Prepare to deploy rapid response team and materiel	Prepare to implement screening and/or travel restrictions from affected area		Revise prioritization and allocation of pandemic vaccine and antiviral medications			
Offer technical assistance. Encourage information sharing	POLICY DECISIONS					
POLICY DECISIONS	Pre-positioning of U. S. contribution to international stockpile assets					
Deployment of countermeasures	Use of pre-pandemic vaccine					
WHO Phase 1 or 2 Inter-Pandemic Period	WHO Phase 3 Pandemic Alert Period	WHO Phase 4 or 5 Pandemic Alert Period	WHO Phase 6 Pandemic Period			

**b. TASKS TO CC/CO/NIOSH.****BACKGROUND:**

Numbered Actions below are those HHS assigned to CDC from HSC's National Strategy for Pandemic Influenza Implementation Plan. The designated CC/CO/NIOSH is responsible for ensuring that the action is complete and all associated tasks are accomplished (The Action Register contains the narrative for each numbered HSC Action, HHS stated task, and CDC Task as well as other pertinent information). Each of the referenced HSC Actions includes Critical Tasks which were derived from those Actions as well as internal mission analysis. The Critical Tasks are those which must be completed in order for CDC to accomplish its mission. The number in parentheses indicates a Critical Task referring to the applicable HSC Action (e.g., 6.1.3.1-T.01 means HSC Action 6.1.3.1 with CDC Critical Task number T.01). Critical Tasks that do not reference an applicable HSC Action are Implied Critical Tasks derived from missions and objectives of CDC CC/CO/NIOSH (e.g., C.346-T16). Critical Tasks are listed by WHO phases/USG stages during which the tasks should begin. Critical Task activity begun during one phase/stage (while not repeated in the text) may carry over into subsequent phases/stages when necessary and appropriate.

The tasks are organized by staff section/CC/CO/NIOSH and pandemic period:

Inter-Pandemic Period: (WHO Phases 1 – 2, USG Stage 0)

Pandemic Alert Period: (WHO Phases 3 – 5, USG Stages 0 – 2)

Pandemic Period: (WHO Phase 6, USG Stages 3 – 6)

1) Office of the Director (OD).

Provide senior scientific leadership, oversight, Congressional liaison, financial management, informational and situational awareness. Establish countermeasure programs internally to CDC, coordinate with Senior Management Officials (SMOs), and communicate with USG, SLTT and international officials during an influenza pandemic. (6.1.11.2; 8.1.2.4)



**a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)****(1) Portfolio Management Project (PMP)/Senior Management Officials (SMO):**

- (a) Develop a plan for how CDC assets will be integrated and managed during an influenza pandemic in all SLTT jurisdictions (C.356-T.04)
- (b) Determine and ensure training for all SMOs both assigned and temporary. (C.356-T.05)

(2) Office of Workforce and Career Development (OWCD):

Ensure all CDC personnel enter and maintain data into CDC Neighborhood to allow the Preparedness and Workforce Management System (PWMS) to produce a by-name roster of personnel to augment the DEOC at the following points:

- (a) Declaration of Pandemic Alert Period.
- (b) Declaration of Pandemic Period.
- (c) CDC at 30% of workforce absentee rate.
- (d) CDC at 45% of workforce absentee rate.
- (e) CDC at 60% of workforce absentee rate. (C.363-T.03)

(3) Financial Management Office (FMO):

Provide influenza pandemic funding, procurement, and distribution across CDC. (C.374-T.05) Reference Annex I (Support Services) for detailed information.

(4) Office of Security and Emergency Preparedness (OSEP):

- (a) Prepare an Influenza Pandemic Continuity of Operations Plan (COOP) for CDC. (C.370-T.04)
- (b) Provide guidance to SLTTs to assure that planning partners and stakeholders adequately address law enforcement and public safety preparedness for activities arising from the impacts of an influenza pandemic. (C.371-T.01)

(5) Office of Health and Safety (OHS):

Establish an influenza pandemic countermeasures program internally for CDC employees and contractors. (C.372-T.04)





(6) **Office of Chief Science Officer (OCSO):**

Oversee and coordinate development of influenza pandemic scientific policies for CDC including clearance procedure for written scientific materials; human subjects protections, privacy, and Institutional Review Board (IRB) procedures; resolution of research vs. public health practice conflicts; Food and Drug Administration (FDA)-related Investigational New Drug/Investigational Device Exemptions (IND/IDE) regulations for drugs, devices, or diagnostics; agency reviews of urgent Requests for Assistance (RFA); and specimen storage procedures. (C.375-T.02)

(7) **Office of Minority and Health Disparities/Office of Strategy and Innovation (OMHD/OSI):**

- (a) Assist and support COTPER, CCID, and other CC/CO/NIOSH in developing processes to work with the CDC/ATSDR Minority Initiative Coordinating Committee (CAMICC), HHS Office of Minority Health (OMH), State Offices of Minority Health, Tribal Boards of Health, and other SLTT agencies to detect and address issues of equity and diversity in official responses to pandemic influenza (C.368-T.01).
- (b) Engage OMHDs 11 cooperative agreement partners and enable their participation in organized responses at SLTT levels to mitigate adverse effects of pandemic influenza in racial/ethnic minority populations and sovereign American Indian/Alaska Native (AI/AN) communities. (C.368-T.02)

(8) **OD/Office of Enterprise Communication (OEC):**

- (a) Oversee matters relating to the reputation and integrity of CDC.
- (b) Conduct influenza pandemic SWOT (Strengths, Weaknesses, Opportunities and Threats) analyses.





- (c) Provide and coordinate timely and accurate responses to legislative inquiries about the influenza pandemic between CDC/Washington (CDC/W) and CDC/ATSDR. (C.366-T.01)
- (d) Develop procedures with CDC/W for receiving, staffing, and responding to White House and Congressional inquiries and correspondence regarding an influenza pandemic. (C.366-T.02)

Protect Human Health

Preparedness & Communication

- (e) Develop pandemic influenza-specific training based on the HHS/CDC Crisis and Emergency Risk Communication curriculum that focuses on the principles of risk communication for Federal, State, local and tribal officials. (6.1.3.3-T.02)
- (f) Provide influenza pandemic-related training in all 10 HHS regions, to include Departmental staff as well as State/local communicators and community leaders within the respective regions. (6.1.3.3-T.03)
- (g) Support and manage the CDC influenza pandemic Speakers' Bureau.

b) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)

(1) PMP/SMO:

- (a) Facilitate exchange of information with SLTT jurisdictions in preparation for and during an influenza pandemic (C.356-T.01)
- (b) Coordinate, monitor and manage the field operations for all CDC assets deployed in the SLTT jurisdiction during an influenza pandemic. (C.356-T.07)

c) Pandemic Period: (WHO Phase 6; USG Stages 3-6)

(1) OSEP:

Provide classified information briefings and papers as requested by the CDC Director and the Incident Manager (IM). (C.369-T.05).



**(2) PMP/SMO:*****Preparedness & Communication***

Ensure early coordination with Federal Partners and the National Operations Center (NOC) and with the Regional Response Coordination Center (RRCC), the Joint Field Office (JFO), and the Joint Information Center (JIC). (6.1.2.2-T.03)

(3) OEC:

- (a) Coordinate information clearance with JIC and CDC/W. (C.366-T.03)
- (b) Provide team-specific data for publication in the IAP or other required reports.
- (c) Provide briefings for CDC Senior Staff not directly involved with the response.
- (d) Liaison to the JIC will attend the daily senior staff update.
- (e) Support the Enterprise Desk in the JIC, as required.
- (f) Attend JIC briefings.

Refer to Appendix 1 (OD) to Annex C.

2) Coordinating Center for Infectious Diseases (CCID).

Provide information, guidance, epidemiological services, immunization technical assistance, and laboratory support to the public health and medical sectors to minimize the impact of an influenza pandemic on the health of Americans. Support the development of plans for countermeasure distribution and tracking, conducting epidemiological investigations, and carrying out surveillance activities at the human – animal interface. Maintain the capacity to slow the importation of pandemic influenza virus subtypes in animals and humans at U. S. ports of entry (POE) and border crossings.

a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

- (1) Provide guidance to SLTTs to assist them in developing plans to allocate and distribute pandemic vaccine within their jurisdictions, and vaccinate their jurisdictions according to priority groups. (C.341-T.05)





- (2) In coordination with SLTT partners and NCPHI, develop plans for systems to track pre-pandemic and pandemic vaccine doses administered. (C.343-T.05)

International Efforts

Preparedness & Communication

- (3) Provide technical assistance to SLTT partners regarding investigation of cases of Highly Pathogenic Avian Influenza (HPAI)/novel influenza virus subtypes or genotypes with pandemic potential, including the establishment of multi-disciplinary response teams. (4.1.2.5-T.05)

Response & Containment

- (4) Increase the number of CDC staff trained in community containment measures for influenza to increase the cadre available for international response activities. (4.3.1.4-T.03)
- (5) Upon recognition of sustained human-to-human transmission, provide support in the form of technical advice to DOS, as requested and as needed, on if and when to activate international and bilateral travel agreements to limit international travel to the US from affected countries, and when to request implementation of exit screening by affected countries. (4.3.2.1-T.01)
- (6) Develop standards for exit screening regimens for conducting and evaluating exit screening of travelers (U.S. and non-U.S. citizens) for pandemic influenza at international embarkation points. (4.3.2.1-T.02)
- (7) Provide recommendations to DOS, as requested and required, for exit screening minimum standards/evaluation guides and voluntary limitations of travel, for development by DOS of bi-national and multi-national arrangements for exit screening and travel exclusion. (4.3.2.1-T.03)
- (8) Develop pre-departure screening guidelines for communicable diseases posing a serious public health threat (including pandemic influenza) for international passenger airlines and crew members in collaboration with WHO and IATA (4.3.2.1-T.04)





Transportation and Borders

Pandemic Planning

- (9) Provide technical assistance and guidance to DHS/DOT planning efforts to strengthen border and transportation sector capacity. (5.1.1.1-T.01)
- (10) Assess critical infrastructure for COOP and make contingency plans to obtain assistance to maintain needed operations during a pandemic. This would include the pre-event training of USPHS Commissioned Corps (CC) Officers and Medical Reserve Corps (MRC) personnel to perform Quarantine Station activities. (5.1.1.3-T.03)
- (11) Provide technical assistance and guidance to SLTT and private sector transportation partners on responding to pandemic influenza at airports, maritime ports, and land borders. (5.1.2.3-T.01)
- (12) Provide technical assistance for tabletop exercises to give sector participants a sense of logistical challenges likely to be experienced in a pandemic; help identify gaps in preparedness, and assist partners in developing plans for response and recovery. (5.1.3.1-T.02)

Surveillance & Detection

- (13) Identify those steps and requirements if an ill traveler with suspected pandemic influenza is identified to include on-site versus at home quarantine of exposed travelers, use of antiviral prophylactic therapy for exposed travelers, and the initiation of contact tracing and follow-up. (5.2.4.1-T.02)
- (14) Implement exit screening on all travelers departing the United States at all points of departure (air, sea and land), incorporating lessons learned from entry screening. (5.2.4.1-T.04)
- (15) As requested by and in coordination with DOS, work with international organizations and foreign countries to promote exit screening standards for use by foreign countries, and promote voluntary compliance with the use of these measures. (5.2.4.3-T.02)





- (16) Provide technical assistance to DOT and DHS regarding potential triggers for dynamic management/diversion of inbound international flights/vessels containing passengers with suspected pandemic influenza and sites to which flights/vessels could be diverted. Possible circumstances requiring diversion of flights/vessels would include en-route high-risk situations (e.g. occurrence of multiple cases, suspected outbreak, or conditions for high-probability of transmission of confirmed pandemic influenza). Additionally, diversion may be warranted for land-based situations such as a destination airport/port that is overwhelmed by a concurrent quarantine situation or otherwise unable to implement adequate control measures. (5.2.4.5-T.03)
- (17) Establish criteria and case definitions (based on symptoms and high risk exposures - e.g. travel, activity) for case reporting. (5.2.4.6-T.01)
- (18) Meet all flights with ill travelers: evaluate ill travelers; isolate them and arrange for treatment, if needed collect specimens for virologic testing. (5.2.4.6-T.05)
- (19) Engage port agencies (e.g. CBP, TSA, and USCG) in design of surveillance system for in-bound and outbound travelers and goods (directly or indirectly) from/to target areas at U.S. ports of entry. (5.2.4.7-T.01)
- (20) Update education of all port front line staff at POE in exit screening measures. (5.2.4.7-T.02)
- (21) Develop education materials for travelers and undocumented aliens apprehended at and between US ports of entry. (5.2.4.8-T.04)
- (22) Ensure each Quarantine Station has the means to safely dispose of birds or bird products that are denied entry. (5.2.5.2-T.03)

Response & Containment

- (23) Upon request of DOS and in coordination with DOS, provide technical advice to countries for the development of nonpharmaceutical interventions for prevention and containment of cases and contacts in affected countries. (5.3.1.2-T.04)





- (24) Develop and issue travel advisories and/or public announcements for areas where outbreaks have occurred and ensure adequate coordination with appropriate diplomatic, transportation, border stakeholders, and international stakeholders. (5.3.2.1-T.04)
- (25) In support of and by request of DOS, work with the WHO Secretariat and U.S. Government partners to develop protocols that include determinations as to when to restrict travel to the US. Ensure that at-risk countries are aware of these protocols, as appropriate. Activities include the following:
- Remaining in close communication with the WHO Secretariat and other international organizations to stay current on the extent of outbreaks.
 - Conducting intra-HHS OPDIV consultations and discussions.
 - Communicating the best advice to DOS, and other U.S. Government agencies.
- (5.3.1.2-T.12-S02)

Protecting Human Health

Preparedness & Communication

- (26) Work with SLTT and other partners to track adverse events associated with antiviral drugs (6.1.13.9-T.02)
- (27) Work with SLTTs and other partners to develop plans to monitor adverse events associated with pre-pandemic vaccine. (6.1.13.9-T.03)
- (28) Develop protocols for conducting antiviral resistance and effectiveness assessments. (6.1.13.9-T.07)
- (29) Establish/revise preliminary pandemic vaccine and antiviral prioritization for risk groups by leveraging information from pre-pandemic case investigations, laboratory investigations, and influenza surveillance systems. (6.1.14.4-T.02)

Scientific Information Sharing & Accelerated Development

- (30) Publish findings from sequencing of viral isolates.(6.1.15.1-T.05)
- (31) Publish findings from evaluation studies of vaccines, antiviral drugs, and diagnostics (6.1.15.3-T.07)





- (32) Prepare, acquire, qualify, and provide access to reference strains representative of target influenza viruses to vaccine manufacturers. (6.1.17.1-T.01)
- (33) Perform genetic and antigenic analyses of viruses with pandemic potential to identify appropriate vaccine candidate strains. (6.1.17.1-T.01-S.04)

Surveillance & Detection

- (34) Provide technical assistance to SLTT public health laboratory staffs to assess surge capacity in public and clinical laboratories in their jurisdictions, to identify needs to accommodate increased demand during a pandemic, and to identify efforts to address critical gaps. (6.2.1.5-T.07)
- (35) Support SLTT laboratory capacity to ensure reporting of virologic information (6.2.2.1-T.03)

Response & Containment

- (36) Provide specific intervention and infection control guidance for SLTT partners, healthcare workers, and the general public to reduce risk of viral transmission in various settings. (6.3.1.1-T.01)
- (37) Develop Federal guidance regarding strategy for use of community-level non-pharmaceutical interventions for distribution to SLTT public health officials and the public. (6.3.2.1-T.07)

Institutions: Protecting Personnel and Ensuring Continuity of Operations

Preparation & Communication

- (38) Provide a guidance document on identifying and planning for maintenance of critical health care infrastructure (including preservation of blood collection, distribution, and transfusion services). (9.1.2.1-T.02)

b) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)

- (1) Coordinate with health care providers and infectious control societies to identify existing and/or establish new surveillance systems for monitoring clusters of illness and absenteeism among health care workers. (C.327-T.01)





International Efforts

Preparedness & Communication

- (2) Provide technical assistance to foreign public health ministries for development and evaluation of national pandemic influenza emergency response plans.
(4.1.1.1-T.03)

Transportation and Borders

Use Surveillance to Limit Spread

- (3) Provide technical assistance to international partners regarding investigation of cases, clusters, or outbreaks of avian or human novel influenza virus subtypes or genotypes with pandemic potential, including the establishment of multidisciplinary rapid response teams to ensure timely and accurate diagnosis and reporting. (4.2.1.1-T.02).
- (4) Develop USG Stage and WHO-phase specific response protocols for travelers and undocumented aliens encountered with signs and symptoms of influenza or with significant history of exposure. These protocols would be based on phase specific case definition for detection, as well as on criteria for isolation, quarantine, and transport to a medical facility for further treatment and evaluation. (5.2.4.8-T.01)

Protecting Human Health

Preparation & Communication

- (5) In coordination with HHS/OS , other federal and SLTT partners, healthcare and medical societies, and clinical providers, develop model protocols and algorithms for delivery of healthcare under conditions of scarce resources (i.e., phone protocols for call centers, triage algorithms for patient assessment, clinical algorithms for usage of scarce medical equipment, algorithms for determining essential hospital services, and algorithms for reconstitution of healthcare systems to allow provision of essential services). (6.1.2.4-T.02)





- (6) Develop guidance regarding non-pharmaceutical interventions that can decrease the risk of transmitting influenza including isolation, quarantine, and social distancing (including school closure, cancellation of public events, etc.).
(6.1.3.1-T.01)
- (7) Monitor the safety and effectiveness of antiviral drugs using the NEISS-CADES (or other existing surveillance systems. (6.1.13.9-T.05)

Surveillance & Detection

- (8) Ensure consistent disease surveillance systems and information provided through the national influenza surveillance system. (6.2.2.1-T.04) Refer to Table 13 (CDC Information Systems for Influenza Pandemic) Appendix 1 to Annex K
- (9) Provide technical assistance on establishing and maintaining a mechanism for ongoing communications between SLTT partners and critical health care infrastructure regarding availability of resources. (6.2.4.2-T.04)

Response & Containment

- (10) Encourage healthcare systems to consider treatment algorithms and healthcare delivery strategies (including infection control and medical surge) via dissemination of the guidance developed as part of HSC Actions and through exercises and drills (e.g., full-scale, functional, tabletop, web-based).
(6.3.4.8-T.01)

c) Pandemic Period: (WHO Phase 6; USG Stages 3-6)

Transportation and Borders

Response & Containment

- (1) Provide technical assistance to DOS and DHS on implementing voluntary or mandatory travel restrictions and oversee exit screening during a pandemic.
(5.3.1.1-T.01)
- (2) Implement pre-departure, en route, and entry screening protocols, and the diagnosis and reporting of suspect cases of a novel influenza virus subtype.
(5.3.1.1-T.02)





- (3) In coordination with DHS and other Federal partners, implement traveler screening at U. S. international POE and domestic airports. (5.3.1.5-T.02)

Protecting Human Health

Preparedness & Communication

- (4) In coordination with SLTTs and other partners, develop plans to monitor adverse events associated with pandemic vaccine. (6.1.13.9-T.04)
- (5) Develop protocols for conducting vaccine effectiveness assessments that include at minimum laboratory-confirmed emergency department visits, hospitalizations, and deaths, though not all outcomes will be assessed through all mechanisms. (6.1.13.9-T.06)

Surveillance & Detection

- (6) Provide disease surveillance data to assist with decision making about effectiveness of mitigation strategies. (6.2.4.1-T.10)
- (7) Provide technical assistance to SLTT public health staff to assess epidemiologic surge capacity in their jurisdictions, to identify needs to accommodate increased demand during a pandemic, and to identify efforts to address critical gaps. (6.2.4.1-T.15)

3) Coordinating Office for Terrorism, Preparedness, and Emergency Response (COTPER).

Coordinate CDC's NIMS-compliant, DEOC-structured response to an influenza pandemic in collaboration with higher authorities, SLTT, and private sector partners; assemble and distribute key pharmaceutical and non-pharmaceutical countermeasures; and support SLTT agencies through cooperative agreements to achieve preparedness, readiness, and capacity to minimize morbidity and mortality.

a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

- (1) Ensure effective and efficient coordination of CDC's ESF #8 functions with HHS and DHS. (C.346-T.18)





- (2) In collaboration with other CC/CO/NIOSH, develop, execute, and support a preparedness strategy with plans, training and exercises that target CDC individuals, organizations, other public health workers, clinicians, and laboratory technicians needed to detect, investigate, respond to, and recover from an influenza pandemic. (C.357-T.02)
- (3) Maintain the CDC Pandemic Operation Plan including regular updates, exercises and related activities. (C.357-T.05)

Protecting Human Health

- (4) Provide specific financial assistance and cooperative agreement guidance to SLTT partners to plan and exercise for influenza pandemic. Strengthen epidemiology, surveillance, laboratory, communications, information systems, risk communication, professional training and overall horizontal and vertical coordination capacity to mitigate the effects of an influenza pandemic. (6.1.1.1-T.01)
- (5) Develop CDC stockpiled countermeasure distribution plans and develop strategies to deploy/ship critical assets to designated target groups. (6.1.13.1-T.01)
- (6) Convene meetings with Federal, state and local partners to develop regional distribution plans for medical material. Review the appropriateness of SNS distribution plans developed by the states; modify SNS plans as appropriate. (6.1.13.7-T.01)
- (7) Develop state-level distribution exercises. (6.1.13.7-T.02)
- (8) Assist with state exercises as needed. (6.1.13.7-T.03)
- (9) Provide the opportunity and guidance for SLTT governments to take advantage of Federally subsidized antiviral purchasing arrangements. (6.1.5.1-T.01)
- (10) Configure SNS and provide guidance in configuring SLTT stockpiles with material, equipment, and effective pharmaceutical and non-pharmaceutical countermeasures needed in an influenza pandemic as determined by subject matter experts. (6.1.6.1-T.02)



**b) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)**

- (1) Working with Emergency Coordinators from CDC CC/COs/NIOSH identify at least personnel per functional IMS role to respond to the DEOC during a public health emergency.(C.345-T.05)
- (2) Provide a centralized management structure to coordinate and synchronize CDC actions associated with CDC's response to a pandemic event.(C.345-T.07)
- (3) During all phases of influenza pandemic preparedness and in cooperation with CC/CO/NIOSH identify appropriate CDC Senior Leadership Team (SLT) members, Subject Matter Experts (SMEs) and support staff to adequately represent CDC functions during a CDC response to pandemic flu. (C.345-T.09)
- (4) Assist the DEOC with continuity of operations (C.346-T.16)

Protecting Human Health***Preparedness & Communication***

- (5) Identify HHS/CDC role, including when HHS/CDC staff will deploy to assist with an outbreak investigation. (6.1.2.2-T.01)
- (6) Coordinate the necessary preparation to deploy CDC response teams. (6.1.2.2-T.02)

Response & Containment

- (7) Activate and distribute pharmacological and non-pharmacological countermeasures and other material from the SNS at the direction of higher authorities. (6.3.5.3-T.02)

4) Coordinating Center for Health Information and Service (CCHIS).

Support HHS/OS, SLTT partners, and the general public by developing and disseminating timely, accurate, science-based influenza pandemic status reports and public health messages. Contribute to CDC situational awareness by acquiring and analyzing U. S. healthcare utilization and resource data. Provide assistance to SLTT agencies and USG partners on the development or use of information systems that support real-time situational awareness during a pandemic.



**a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)****International Efforts*****Preparedness & Communication***

- (1) Provide informatics guidance to COGH and outside the continental United States (OCONUS) partners' efforts to build epidemiology, surveillance, laboratory, diagnostics, and rapid response protocols and capabilities. (4.1.2.1-T.01)

Transportation and Borders***Surveillance & Detection***

- (2) Assist in the developing and distributing appropriate educational materials for travelers at US POE. (5.2.4.4-T.05)

Protecting Human Health***Preparedness & Communication***

- (3) Develop web-based, multilingual, pandemic influenza educational and risk communication materials and broadcast emergency response messages for media campaigns, the general public and health care workers. (6.1.3.2-T.01)
- (4) Establish key public and private partnerships to support communication outreach. (6.1.4.1-T.02)
- (5) Develop an SOP to use key public and private partnerships to disseminate urgent information. (6.1.4.1-T.04)
- (6) Strengthen disease surveillance, especially from acute care medical settings, to satisfy timely morbidity and mortality situational awareness at all levels of government. (6.2.4.1-T.11)

Surveillance & Detection

- (7) Develop a plan to improve the tracking of the number of pneumonia or influenza hospitalizations and associated deaths during a pandemic, including hospital census information. (6.2.2.2-T.01)
- (8) Ensure use of Preparedness and Workforce Management System (PWMS) for surge requirements of CDC staff. (6.2.2.3-T.08)





- (9) Provide informatics guidance and SOPs to enable SLTT partners' efforts to establish real-time situational awareness including assessing the local threat/impact, managing local public health and healthcare resources, implementing pharmacological interventions, and coordinating efforts with local jurisdictions and higher authorities. (6.2.2.10-T.03)

Institutions: Protecting Personnel and Ensuring Continuity of Operations

Preparedness & Communication

- (10) Provide technical assistance to DHS as they conduct forums, conferences and exercises with major industry, professional organizations and key infrastructure private sector entities to identify essential functions and critical planning; educate them on the effects of pandemic influenza and validate planning guidelines. (9.1.3.1-T.01)

b) Pandemic Alert Period: (WHO Phases 3-5; USG Stage 0-2)

Transportation and Borders

Response & Containment

- (1) Provide informatics guidance and information systems technical assistance to CCID in their efforts to triage, diagnose, isolate, treat, quarantine, prophylax, and report ill/exposed persons travelers detected at U.S. ports of entry or border crossings. (5.3.1.5-T.03)

Protecting Human Health

Preparedness & Communication

- (2) Improve real-time environmental scanning and analysis capacity to (1) detect harmful rumors and misinformation for immediate agency response, (2) track changes in the public's information needs in order to more precisely target messages, and, (3) provide trend analysis to anticipate policy and communication issues as a pandemic unfolds. (6.1.3.1-T.06)

2) Coordinating Office for Global Health (COGH).

Provide leadership and work with partners around the globe to increase preparedness to prevent and/or control naturally occurring and man-made threats to health. Assist other USG





agencies to build international capacity to contain transmission of a pandemic influenza subtype in animals or humans at its source.

a) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

International Efforts

Preparedness & Communication

- (1) Provide guidance to USG partners on influenza pandemic response planning. (4.1.1.1-T.02)
- (2) In collaboration with CCID, build epidemiologic, surveillance, laboratory, diagnostics, and rapid response capabilities. (4.1.2.1-T.02)

b) Pandemic Period (WHO Phase 6, USG Stages 3-6)

International Efforts

Response & Containment

- (1) Provide technical assistance to ministries of health on the use of pharmacological and non-pharmacological countermeasures during an influenza pandemic. (4.3.3.1-T.03) Refer to Appendix 5 (COGH) to Annex C.

3) National Institute for Occupational Safety and Health (NIOSH).

Monitor and assess factors related to workplace transmissions of influenza and the effects of the pandemic on the workplace. Develop and disseminate safety and health recommendations. Provide technical assistance and guidance regarding PPE, engineering, and administrative controls to assure safe and healthful working conditions.

a) Inter-Pandemic Period: (WHO Phase 1-2; USG Stage 0)

- (1) Determine the appropriate PPE requirements for healthcare workers (HCWs) exposed to the pandemic influenza virus based on the transmissibility characteristics, exposure routes, efficacy of control measures and the need of additional guidance.(C.353-T.02)
- (2) Conduct research, provide alternative approaches, facilitate the flow of information on the selection, use, and care of PPE for circumstances in which the





supply/demand channels are overwhelmed during an influenza pandemic (C.353-T.05)

- (3) Develop and disseminate information regarding appropriate engineering and other types of controls to protect workers (i.e., isolation room ventilation, containment, and barriers). (C.359-T.03)

Transportation and Borders

Preparedness & Communication

- (4) Provide occupational health guidance for personnel who may come into contact with travelers from affected areas or with infected birds or contaminated bird products. (5.1.4.1-T.03)

Protecting Human Health

Surveillance & Detection

- (5) Develop illness reporting system for other working populations at risk. As a subset, coordinate with CCID to develop a healthcare workers (HCW) illness reporting system (6.2.4.2-T.03)

Protecting Animal Health

Preparedness & Communication

- (6) In collaboration with other health communication/marketing activities at CDC and USDA, provide poultry and swine industry guidance documents and other training materials on the appropriate handling and processing of animals potentially associated with the transmission of HPAI/novel influenza. (7.1.3.3-T.06)

b) Pandemic Alert Period: (WHO Phase 3-5; USG Stages 0-2)

Protecting Human Health

Surveillance & Detection

- (1) Develop an SOP to expedite assessments of innovative protective devices, conduct evaluations and expedited certification of new respirator models in accordance with applicable performance metrics/regulatory standards, and





develop and initiate a research program to identify alternatives for use/re-use of respirators. (6.2.1.3-T.06)

Law Enforcement, Public Safety, and Security

Preparedness & Communication

- (2) Develop and disseminate Worker Safety and Health Guidance with a focus on first responders, HCWs (institutional and home care) and workers involved in disease control and eradication - providing both print and web based English and Spanish language materials. (8.1.3.1-T.04)

Institutions: Protecting Personnel and Continuity of Operations Plans

Preparedness & Communication

- (3) Provide guidance to other government agencies, unions, employers, and trade associations regarding worker registries, worker training, hazard assessment and communications, and PPE (9.1.4.1-T.06)

4) Coordinating Center for Environmental Health and Injury Prevention (CCEHIP).

Provide technical assistance and health education/health communication about environmental health and injury prevention issues related to an influenza pandemic.

a) Inter-Pandemic Period (WHO Phases 1-2, USG Stage 0)

- (1) Provide scientific support in assessing emerging psychosocial issues. (C.367-T.02)

5) Coordinating Center for Health Promotion (CoCHP).

Provide technical and health education/health communication on influenza pandemic issues to schools and special populations to include those with chronic diseases and/or disabilities, adolescents, children, babies, pregnant women and women of childbearing age, and older adults.



**a) Pandemic Period: (WHO Phase 6; USG Stages 3-6)**

- (1) Conduct special studies and evaluations regarding an influenza pandemic that can be conducted via rapid telephone surveys administered through the Behavioral Risk Factor Surveillance System (BRFSS).

6) Role of State, Local, Territorial and Tribal (SLTT) Governments

CDC acknowledges and recognizes the critical role of SLTT partners in a pandemic and their responsibilities for coordinating preparedness and response activities related to the public health aspects of complex emergencies and disasters within their respective jurisdictions. Additional guidance for integrating these activities with the Federal sector is provided at Annex G (State, Local, Territorial, and Tribal Support).

b. COORDINATING INSTRUCTIONS.

- 1) This plan becomes effective when signed by the Director, CDC.
- 2) Director's Critical Information Requirements (DCIR).

These are essential components of information the Director has identified as crucial to the decision making process in combating an influenza pandemic. DCIRs are the product of a careful and continual analysis of information requirements by CDC staff. The DCIR are the Director's and must be considered in that context. However, the process is completely dynamic. The Director will discard, adjust, and update DCIRs as the event progresses. Throughout the course of a Pandemic, other DCIRs will be identified to help focus resource allocations and efforts as the Director continues to make decisions. The Situational Awareness (SA) branch is the DCIR focal point and is responsible for the maintenance of the process, validating current DCIR relevance, and gaining Director's approval of subsequent DCIRs.

- a) Report new countries identified with potentially pandemic influenza virus infections in animals.
- b) Report all new instances of possible human to human transmission of potentially pandemic influenza virus infection.





- c) Report the first confirmation of potentially pandemic influenza infection in animals or humans in the western hemisphere.
 - d) Report the arrival in the U. S. of any human from abroad infected with potentially pandemic influenza.
 - e) Report the first death from animal-to-human transmission of potentially pandemic influenza in the United States.
 - f) Report the development of sustained human-to-human transmission of a potentially pandemic influenza virus (transition to WHO Phase 4).
 - g) Report multiple locations of human outbreaks overseas from pandemic influenza.
 - h) Report the first human case of pandemic influenza acquired in the United States.
 - i) Report the first human-to-human spread of pandemic influenza in the United States.
 - j) Report all locations of confirmed human outbreaks of pandemic influenza in the United States.
 - k) Report the pandemic severity index (requires mortality rate and attack rate).
 - l) Report communities that are unable to sustain a case containment strategy to control pandemic influenza transmission.
 - m) Report the first death from human-to-human transmission of pandemic influenza in the United States.
 - n) Report detection of the genetic mutation in pandemic influenza virus that may make the virus resistant to antiviral drugs.
 - o) Report detection of the antigenic variants of pandemic influenza that may make vaccines less effective or ineffective.
- 3) CC/CO/NIOSH referenced in Annex A (DEOC Task Organization) will organize their personnel assets to ensure 24/7 manning of the DEOC to accomplish their missions, roles, and responsibilities in accordance with the mode and tiered response required.
- 4) Emergency personnel recall plans will be maintained and will be implemented upon activation of the DEOC.





- 5) Each CC/CO/NIOSH will develop a WHO phased influenza pandemic plan/Standing Operating Procedure (SOP) addressing response operations in support of this Operation Plan (OPLAN), and will be prepared to provide back briefs to the Director, CDC regarding those plans when requested.
- 6) There is a range of functions and tasks that CDC will conduct during the six different WHO Phases (refer to paragraph 1.b.3.k, Table 1 above). Because the WHO Phases and the USG Stages are broadly defined, all elements of CDC must consider a variety of specific scenarios to identify additional CDC-related activities that would be needed to plan for and respond to an influenza pandemic. Refer to Appendix 9 (Phased Scenarios) to Annex C.
- 7) All public information materials produced during a pandemic event will be coordinated with Emergency Communication System (ECS) leadership and with the appropriate internal subject matter experts (SMEs) prior to public release. Information products authored by CDC staff or published by CDC and released for public use will be scientifically sound and technically accurate while meeting the need for the timely release of information. Refer to Appendix 2 (Expedited Approval Process for Avian/Pandemic Influenza Materials) to Annex J.
- 8) Each CC/CO/NIOSH will develop plans to support internal CDC surge operations while simultaneously maintaining the essential functions that fulfill CDC's basic public health mission. Accordingly, each CC/CO/NIOSH must assess probable short-falls and cross-train personnel appropriately.
- 9) Each CC/CO/NIOSH will develop plans to support CDC surge operations in support of SLTT partners. This SLTT surge support, resources permitting, will be tiered: first tier will be to support SLTT shortfall requirements from existing on-site CDC locations; and second tier will be to support SLTT shortfall requirements off-site at SLTT locations.
- 10) Ensure ITSO is provided a list of all essential systems, services and anticipated hardware expansion requirements.
- 11) Identify anticipated capacity and hardware requirements of all surveillance systems.





4. SUPPORT SERVICES

Support Services for CDC in an influenza pandemic will require a high level of preparation, anticipation, and flexibility across the entire spectrum of support service functions. Support functions include managing cost-related activities and influenza emergency funds, purchase and acquisition of CDC resources and services, deployment of personnel and equipment, and coordination of all movements and CDC human resource activities. During the inter-pandemic period, support service functions are the responsibility of the various CC/CO/NIOSH. Critical support service areas within CDC include the Financial Management Office (FMO), Procurement and Grants Office (PGO), Office of Health and Safety (OHS), Atlanta Human Resources Center (AHRC), the Division of Emergency Operations (DEO), and the Office of Security and Emergency Preparedness (OSEP). The logistics section of DEO is responsible for providing pandemic related services and materiel in support of CDC assets starting with the Pandemic Alert Period (after DEOC activation) and continuing throughout the duration of the pandemic. For detailed information refer to http://eocportal/deployment_welcome_1.asp website on the DEOC/LST Emergency Deployment Information Page, click on “Standard Operating Procedures” (SOP) under the Deployment Section.

Support Services to DEOC/IMS (Incident Management Structure) include:

a. FINANCE.

- 1) In the Inter-Pandemic Period, financial activities are decentralized among CC/CO/NIOSH. Activities include tracking incident costs, conducting cost analysis and cost estimates, and providing funding as needed. Starting with the Pandemic Alert Period (after DEOC activation) and for the duration of the pandemic response, pandemic related financial activities are managed from the DEOC.

b. PROCUREMENT.

In the Inter-Pandemic Period, procurement activities are decentralized among CC/CO/NIOSH. Activities include managing all aspects of accessing funds and procuring resources and services through appropriate means to support normal operations. During the Pandemic Alert Period (after DEOC activation) and for the duration of the pandemic, all pandemic related procurement





activities are managed from the DEOC in accordance with the DEOC Emergency Response Procurement Operations Plan. The Incident Command Structure (ICS) and the DEOC Emergency Response Procurement Operations Plan call for the formation of the Finance and Procurement Accountability Team (FPAT) immediately following DEOC activation. The FPAT will support the activities of the Joint Field Operations (JFO) DEOC/PGO Contracting Officer(s) who is deployed as part of the Logistics Support Team (LST). The FPAT will also coordinate procurement activities being accomplished by Contracting Officers throughout CDC.

c. DEPLOYMENT.

Deployment of personnel and equipment entails a wide array of actions to enable CDC to support international partners and SLTT governments. In the Inter-Pandemic Period, deployment activities are decentralized among CC/CO/NIOSH. During the Pandemic Alert Period (after DEOC activation) and for the duration of the pandemic, all influenza pandemic deployment activities are managed through the IMS, Deployment Coordinator and the Chief of Logistics in the DEOC.

d. TRANSPORTATION.

Transportation describes the movement of personnel, specimens, supplies, and equipment. In the Inter-Pandemic Period, transportation activities are decentralized among CC/CO/NIOSH. During the Pandemic Alert Period (after DEOC activation) and for the duration of the pandemic, all influenza pandemic related transportation activities are managed by the IMS Chief of Logistics located in the DEOC.

e. SECURITY.

Security in this instance includes, but is not limited to physical security (force protection) of CDC facilities (owned and leased), Personnel Security, Communications Security (SCIF ops) and the Security Command Center (SCC). In the Inter-Pandemic Period, the Office of Security and Emergency Preparedness (OSEP) will attach certain security personnel to select CC/CO/NIOSH. During the Pandemic Alert Period and for the duration of the Pandemic, all influenza pandemic related security activities will be managed by the OSEP Liaison assigned to the Director's Emergency Operations Center (DEOC).



**f. PERSONNEL.**

Hiring and replacing critical personnel will be coordinated by the Atlanta Human Resources Center (AHRC) and CDC Office of the Chief Operating Officer (OCOO). In the Inter-Pandemic Period, personnel activities are decentralized among CC/CO/NIOSH. During the Pandemic Alert Period and Pandemic Periods, all influenza pandemic related personnel activities and tracking of employees are managed by the HR functional representative in the Finance and Administrative Section located in the DEOC. The protection of the health and safety of the internal CDC workforce during pandemic operations is critical to the responsiveness and continuity of CDC. Activities in support of this goal include the provision of routine and pandemic-related occupational health services, deployment medical preparations and interventions, PPE, workforce vaccinations, and other countermeasures.

5. MANAGEMENT AND COMMUNICATIONS**a. MANAGEMENT.****1) Director's Emergency Operations Center (DEOC).****a) Purpose:**

The DEOC is the location where the management of the influenza pandemic will take place. The Incident Management Structure located in the DEOC is the focal point for CDC leadership and SMEs during WHO Phase 4 – 6 (USG Stage 2 – 6). CDC uses the Incident Management System structure (IMS) to maintain situational awareness, enhance collaboration and coordination, communicate critical information, and make and implement decisions. In response to the CDC Director's guidance, the Director, DEO acts as the Incident Manager (IM); directs and monitors operational, administrative, and logistical support; and coordinates CDC resources and information with Federal, SLTT and international agencies.



**b) General Planning Guidance:**

When WHO Phase 4 is declared, the Director of Emergency Operations will become the operational lead as the Incident Manager supported by the IMS and with the scientific/clinical/technical expertise from all of CDC for crisis management. A non-resident management program (outside of DEOC 21) will be put in place to coordinate activities prior to DEOC activation. During activation, all Requests for Information/Action will be processed through the DEOC incident management staff so that it becomes the single source of Requests for Information/Action (RFI/RFA), requests for resources, deployment coordination, and follow up. Refer to Annex A (DEOC Task Organization).

c) CDC Continuity of Operations Plan (COOP):

COOP is a component of the overall CDC Integrated Emergency Management Plan (IEMP). The IEMP provides guidance and procedures for managing the response to any emergency or threat of emergency to operations at all CDC locations.

2) Order of Succession.

- a) In the event an influenza pandemic affects CDC senior policy and decision makers, or causes a shutdown of operations of CDC, the Director's authority may be delegated. To ensure continuity of CDC leadership, an order of succession is outlined below and in the IEMP. Refer to Section 3. 0, Page 3-1 (IEMP Version 4, April 2006).
 - (1) Chief Operating Officer.
 - (2) Director, CCID.
 - (3) Director, CCEHIP.
 - (4) Director, OWCD.
- b) In the absence of specific guidance, the successor for the CC/CO/NIOSH Directors is the organizations' Chief Management Official or designee.





3) Crisis Communication.

a) Purpose:

An important component of national preparedness for an influenza pandemic is informing the general public and medical and public health communities world-wide about the potential threat and providing a solid foundation for their actions. These actions must be based on scientifically derived risk communication principles that are critical before, during, and after an influenza pandemic.

b) General Planning Guidance:

Having critical information in place before, during, and after an influenza pandemic will help reduce public anxiety and panic while promoting appropriate health actions. In order to ensure inclusion from all SME's, before and after an event, critical information is develop, approved, and disseminated collaboratively among NCHM, ICU, and other organizational units within CDC. During an event the Emergency Communication System (ECS) works with the ICU and other organizational units in the CDC to accomplish this task. During an event the ECS serves as the core staff for the JIC in the CDC's DEOC. Communications staff from the ICU work collaboratively with the ECS in the JIC, and additional surge capacity is provided by appropriate staff throughout the agency. The JIC is the place where health communication, health education, and public affairs specialists coordinate rapid, agency-wide dissemination of health information and messages to protect public health. The JIC staff also works directly with communicators from other responder agencies at the federal, state, and local levels to ensure that health messages reach the public, media, public health workforce, clinicians, policy makers, and partners. Preparedness efforts for the immediate and pre-pandemic communication needs of CDC as part of the Federal government's preparatory efforts are overseen by leaders from the National Center for Health Marketing, the Office of Enterprise Communication, and the ICU. These efforts include developing influenza pandemic preparedness messages and informational materials as well as establishing and distributing these materials to major stakeholders. JIC operations provide critical, emergency event





information to various audiences through multiple channels. Clearance of crisis communication products will follow clearance procedures outlined in Appendix 2 of Annex J.

c) Responsibilities and Authority:

The HHS Assistant Secretary for Public Affairs (ASPA) will lead the Federal government's public health communications efforts during a pandemic. As the primary source of science-based information, the Director, CDC remains the principal spokesperson for CDC; however, the authority for risk communication has been delegated to the Director, National Center for Health Marketing (NCHM), who works closely with the ASPA and health risk communication professionals throughout NCHM and CDC. Refer to Annex J (Crisis Communication)

b. INFORMATION MANAGEMENT.

1) Purpose.

Broad, real-time, situation awareness is critical to successfully manage CDC's response to an influenza pandemic, inform higher level authorities and the general public, and support SLTT preparedness and response efforts. Situational awareness will be derived from timely access to analyzed information about illness and death; the availability, location, and utilization of critical resources throughout the U. S. public health and medical sectors (ESF #8); and details of key intervention activities that are directed at ill, exposed, or susceptible persons to slow transmission and minimize the influenza pandemic impact.

2) General Planning Guidance.

CDC will be required to support and coordinate multiple information gathering, analysis, and dissemination efforts, in collaboration with SLTT and international partners, during an influenza pandemic. Multiple streams of data, information, and intelligence concerning morbidity and mortality, resources, and interventions must be quickly and regularly assembled to maintain an accurate common operating picture that will inform decision-makers and guide the coordination of a comprehensive national response. The full spectrum of informatics support will be necessary to manage influenza pandemic operations.





The National Center for Immunization and Respiratory Diseases (NCIRD), in coordination with the National Center for Public Health Informatics (NCPHI), the Coordinating Office for Global Health (COGH), and the Office of Security and Emergency Preparedness (OSEP) will ensure surveillance systems, information systems, and analysis activities are capable of obtaining diverse data from the ESF #8 sector for analysis and timely decision making and are coordinated within CDC and with key partners including SLTT.

3) Essential Elements of Information Include:

- a) Early detection of human illness including case and cluster investigations (clinical, laboratory, risk factor) and timely documentation of pandemic spread and impact; characteristics of the circulating virus subtype.
Refer to Annex B (Disease Intelligence).
- b) Human and material resource availability (including surge capacity), location, and utilization.
- c) Utilization and effectiveness of interventions including case management (isolation); contact management (contact tracing and quarantine); vaccination; antiviral medications; social distancing, and other non-medical countermeasures; analysis of vaccine, and antiviral adverse events.

Refer to Annex K (Information Management).

ACKNOWLEDGE RECEIPT OF THIS OPERATION PLAN TO THE DEOC.

JULIE LOUISE GERBERDING, M.D., M.P.H.

Director

Centers for Disease Control and Prevention



**DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION**

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Annexes:

ANNEX A (DEOC TASK ORGANIZATION)

ANNEX B (DISEASE INTELLIGENCE)

ANNEX C (OPERATIONS)

ANNEX D (INFLUENZA PANDEMIC AUTHORITY AND RESPONSIBILITIES)

ANNEX E (INTERNATIONAL AND BORDER INTERVENTIONS)

ANNEX F (COMMUNITY INTERVENTION)

ANNEX G (STATE, LOCAL, TERRITORIAL AND TRIBAL SUPPORT)

ANNEX H (PARTNERSHIPS AND STRATEGIC ALLIANCES)

ANNEX I (SUPPORT SERVICES)

ANNEX J (CRISIS COMMUNICATION)

ANNEX K (INFORMATION MANAGEMENT)

ANNEX L (RECOVERY OPERATIONS)

ANNEX M (LEGAL CONSIDERATIONS)

ANNEX N (REPORTS AND PRODUCTS)

ANNEX O (ACRONYMS)





ANNEX A (DEOC TASK ORGANIZATION)

1. SITUATION

- The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence).
- Mission and Intent of Higher and Supporting Organizations: Refer to Base OPLAN.
- Environment: Refer to Annex B (Disease Intelligence).

2. MISSION

CDC organizes for emergency operations employing a tiered response according to the perceived severity of the threat posed by an influenza pandemic.

Chart 1: CDC Response System Tiered Phases

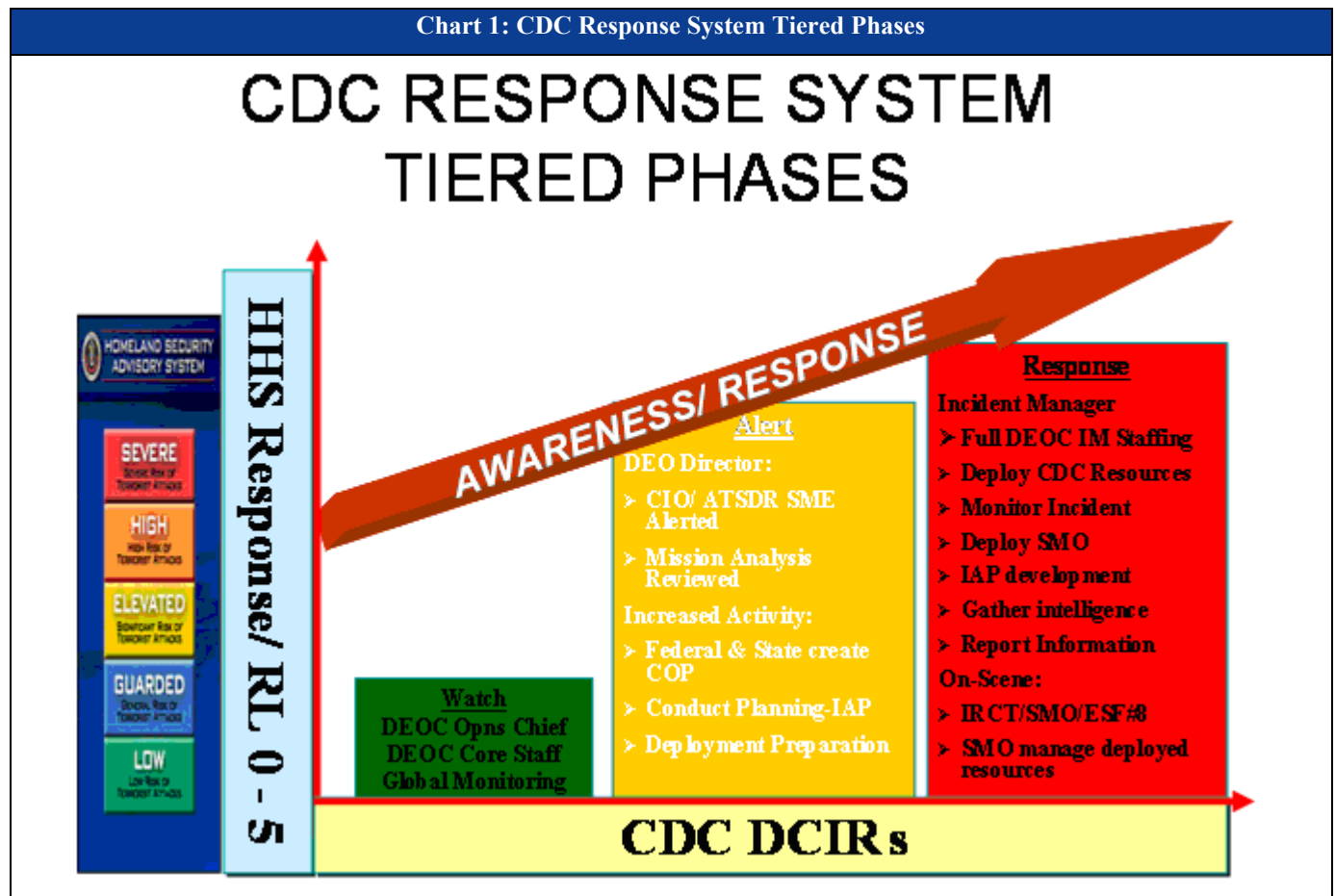
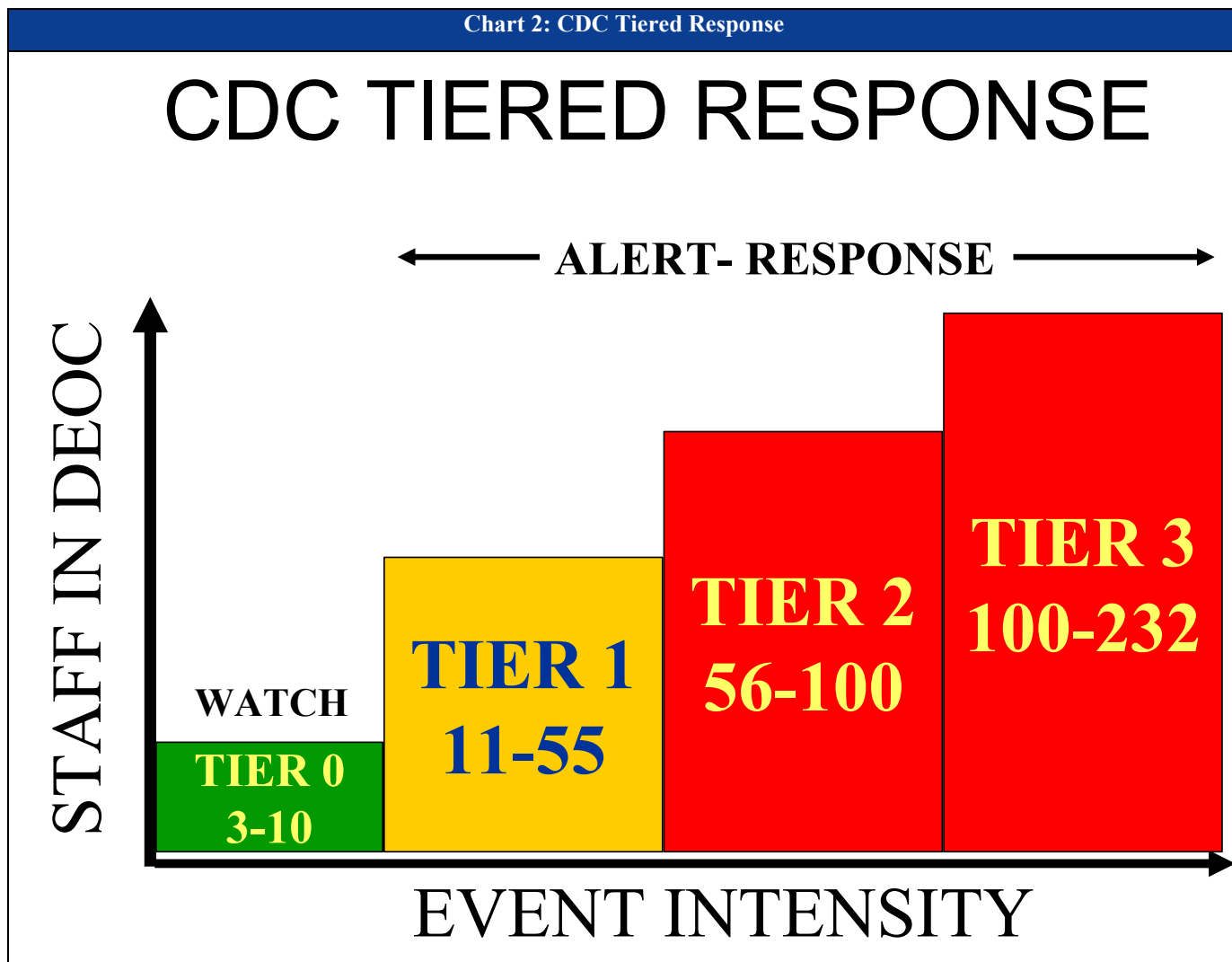




Chart 2: CDC Tiered Response



The CDC operates under the CDC Incident Management System (IMS) which is under the operational control of the designated Incident Manager, the Director, Division of Emergency Operations (DEO)/Coordinating Office for Terrorism Preparedness and Emergency Response (COTPER). Initially, the coordination of this effort will take place from the Director's Emergency Operations Center (DEOC) located at Roybal Campus, Building 21, Floor 3. The direction of the CDC/ATSDR response to an incident will be unified in accordance with the operational aspects established by the IMS.





The IMS is staffed from across the agency and represents the associated functional expertise of CC/CO/NIOSH. The IMS provides operational, administrative, and logistical support to all CC/CO/NIOSH during an incident. Transitioning to the IMS from parent organizational structure in responding to the influenza pandemic will require training and exercises to enhance performance execution utilizing repetitive processes and procedures.

3. EXECUTION

a. Concept of Operations.

- 1) The CDC Director uses the IMS in the DEOC to efficiently deploy personnel, gather and prepare situational reports, analyze and disseminate information in order to maintain situational awareness, and to resolve issues through the centralized structure and operation of an integrated incident management system. CC/CO/NIOSH functional support of the IMS in the DEOC corresponds to surge requirements linked to three alert modes:
 - a) Watch Mode: Maintain public health situational awareness while planning, preparing, and training for contingencies.
 - b) Alert Mode: An event of interest from the Director's Critical Information Requirements (DCIR) has occurred resulting in an increased level of awareness, increased contact with external agencies, event-specific planning, and initial response activities.
 - c) Response Mode: An event demonstrates confirmation of a DCIR with a potential public health threat and triggers expansion of IMS (assumed to be when WHO Phase 4 and USG Stage 2 are declared) resulting in centralized management to include science, logistics, decisional support, and planning.
- 2) Augmentation of the DEOC within the framework of an influenza pandemic will be prescribed by the Director, CDC, and for planning purposes will be driven by the WHO global pandemic phases and the USG Stages for response:





a) Inter-Pandemic Period (WHO Phases 1 –2; USG Stage 0):

DEOC operates in Watch Mode. Scientific/technical/clinical planning and coordination remain the responsibility of CC/CO/NIOSH coordinated by the Influenza Coordination Unit (ICU).

b) Pandemic Alert Period (WHO Phases 3 – 5; USG Stages 0 – 2):

During the alert mode, Director, CDC, may require CDC to activate portions of the IMS functional staffing for centralized management in the DEOC.

c) Pandemic Period (WHO Phase 6; USG Stages 3 – 6):

DEOC will be operating in Response Mode, which may have been activated by Director, CDC at some point during the Pandemic Alert Period, based on the disease intelligence received.

b. Coordinating Instructions.

- 1) CC/CO/NIOSH/Emergency Coordinators (ECs): Provide personnel augmentees to the Incident Manager.
- 2) The IMS in the DEOC will coordinate employment of CDC functional experts with:
 - a) USG through HHS/OGHA (Office for Global Health Affairs) for international response.
 - b) USG through HHS/ASPR for domestic response.
 - c) DOD through DOD liaison and other Federal Liaison Officers (LNOs) as required.
 - d) Public and Private Partnerships through the DEOC operations chief and partner liaisons. Refer to Annex H (Partnerships and Strategic Alliances).
 - e) International organizations (WHO/United Nations International Children's Emergency Fund (UNICEF)) through HHS/OGHA.

4. SUPPORT SERVICES

Refer to Annex I (Support Services).





5. MANAGEMENT AND COMMUNICATIONS

The Incident Manager in support of, and in collaboration with, the Chief Health Officer (CHO) has the overall authority for managing CDC influenza pandemic operations.

APPENDIXES.

1. Watch Mode.
2. Alert Mode.
3. Response Mode.
4. Duties and Responsibilities of Liaison Officials.





APPENDIX 1 (WATCH MODE) TO ANNEX A

1. OVERVIEW

- a. The DEOC is under the operational control of the Director, Division of Emergency Operations (DEO). The DEO provides staffing and monitors potential public health incidents that might involve a CDC response.

Table 2: CC/CO/NIOSH and Respective Components to DEOC Watch Mode

	CCEHIP	OD	COTPER	CCHIS	TOTAL
Operations Chief			1		1
Duty Officer (per shift)			1		1
Watch Officers (per shift)			2		2
Technical Support					
A. Audio/Visual			2		2
B. Information Technology		2			2
C. Informatics Support				1	1
D. GIS	1				
Sub-total	1	2	6	1	10

- b. CC/CO/NIOSH maintain on call SMEs to provide functional/technical support when required to be involved in public health support or emergencies. SMEs also provide updates and information through the DEOC according to established schedules for situational awareness and daily reports.

2. STAFFING REQUIREMENTS

The DEO maintains a full-time staff, on eight hour shifts during Watch Mode operations. Normally, staffing will consist of a Duty Officer for two shifts and two Watch Officers for three shifts with a cadre of technical support specialists. Other functional areas are on call as required. (Table 2)

- a. CC/CO/NIOSH Emergency Coordinators (ECs) maintain current notification rosters, updated quarterly at a minimum or when changes occur, for their staff members involved in emergency operations.





- b.** Once an emergency event has been brought to the attention of the DEOC, designated Emergency Response Coordinators (ERCs), CC/CO/NIOSH ECs, and Preliminary Assessment Team (PAT) members must be available for contact through redundant means and assembled via conference call within 20 minutes from the time the Duty Officer initiates contact measures.
- c.** Based upon initial information regarding an emergency event or through the requests of CC/CO/NIOSH, the Director, CDC (or designee) will determine an appropriate operational mode (alert or response) and decide if the DEOC should initiate increased staffing.
- d.** If a potential threat is imminent, DEO staff will notify the HHS SOC Watch Officer. The DEO staff will then coordinate a DEOC conference call and include pre-identified IM management staff for the specific threat.
- e.** Diagram 1 reflects provision of augmentation personnel to the DEOC in support of the IMS during Watch Mode. Under the CDC Tiered Response concept the Watch Mode at Tier 0 will range from 3 to 10 personnel





Diagram 1: DEOC Composition During Watch Mode

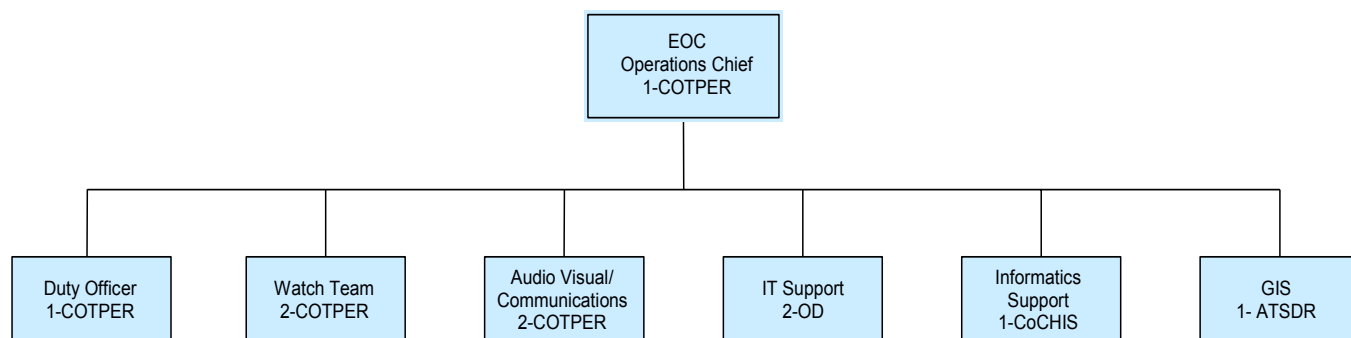
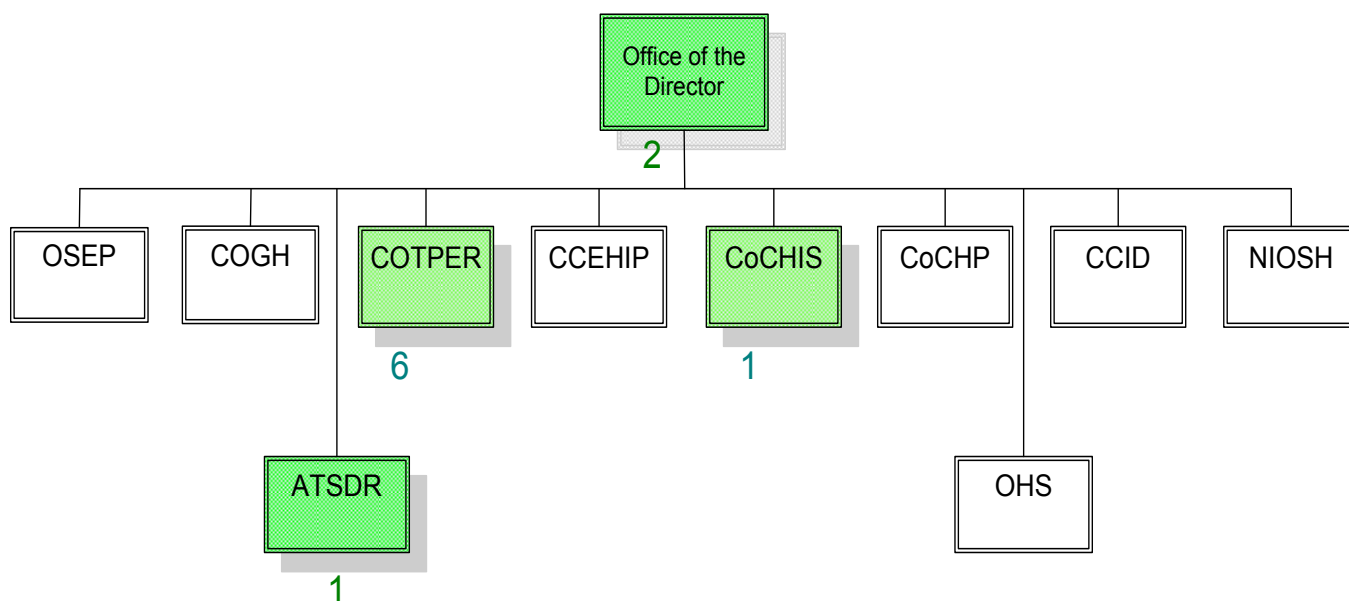


Diagram 2: CC/CO/NIOSH Support of DEOC Watch Mode





APPENDIX 2 (ALERT MODE) TO ANNEX A

1. OVERVIEW

- a.** Alert Mode represents an increased level of awareness for CDC and supporting CC/CO/NIOSH.
- b.** The Duty Officer notifies and establishes contact with appropriate agencies and organizations (Federal, SLTT and international). The criteria for contact are based upon guidelines established by HHS/OS and applicable Federal plans. The DEO core staff initiates processes to assume expanded operations and to maintain close coordination and collaboration with SMEs.
- c.** The Duty Officer, if required, will convene a Preliminary Assessment Team (PAT) to determine the level of CDC's potential involvement in and recommended response to an incident, and provide initial consultative assistance to Federal, SLTT, and international health professionals.
- d.** Emergency Communication System (ECS) staff will assess current information related to the potential threat and determine additional informational needs. ECS will create/update information related to the emerging situation.
- e.** Additional response functional areas will be activated to support operations of deployed personnel.

2. STAFFING

- a.** Besides the core staff, other specialized personnel from CDC are alerted and recalled to the DEOC, as the situation requires.
- b.** During this operational mode (Refer to Table 3.), SMEs are often involved in managing the event without assuming a position in the DEOC (non-resident). SMEs provide updates, spot reports, and situational reports as required to the Duty Officer for distribution internally and externally. Under the CDC Tiered Response concept the Alert Mode at Tier 1 will range from 11 to 55 personnel. Table 3 reflects a sample staffing.
- c.** ECS and the NCHM Emergency Coordinator will evaluate who is available from ECS teams and sources outside the ECS to assist in case of JIC activation.





Table 3: CC/CO/NIOSH and Respective Components to DEOC Alert Mode

	CCEHIP	OD	OSEP	COTPER	CCID	CCHIS	TOTAL
Incident Manager				1			1
Chief Health Officer					1		1
LNO Lead				1			1
Operations Section Chief				1			1
Personnel Resource Mgmt Branch					1		1
Operations Support Branch				2			2
EOC Mgmt Branch		2		5 + 2			9
Situational Awareness Branch	1		1	1		1	4
Planning Section				1	1		2
Logistics Section				3			3
Finance and Administration Section		2					2
JIC						1	
Sub-total	1	4	1	17	3	2	28





Diagram 3: DEOC Composition During Alert Mode

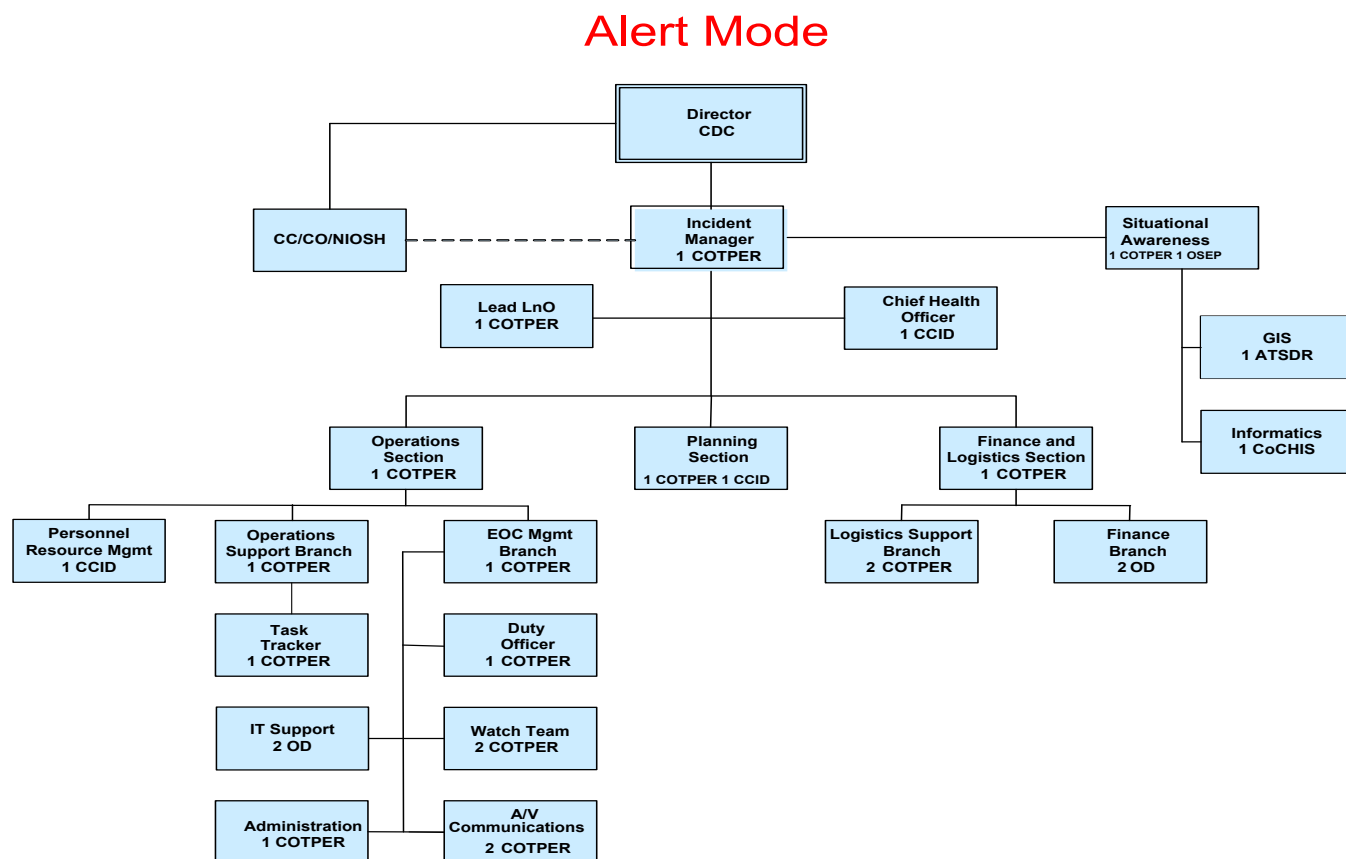
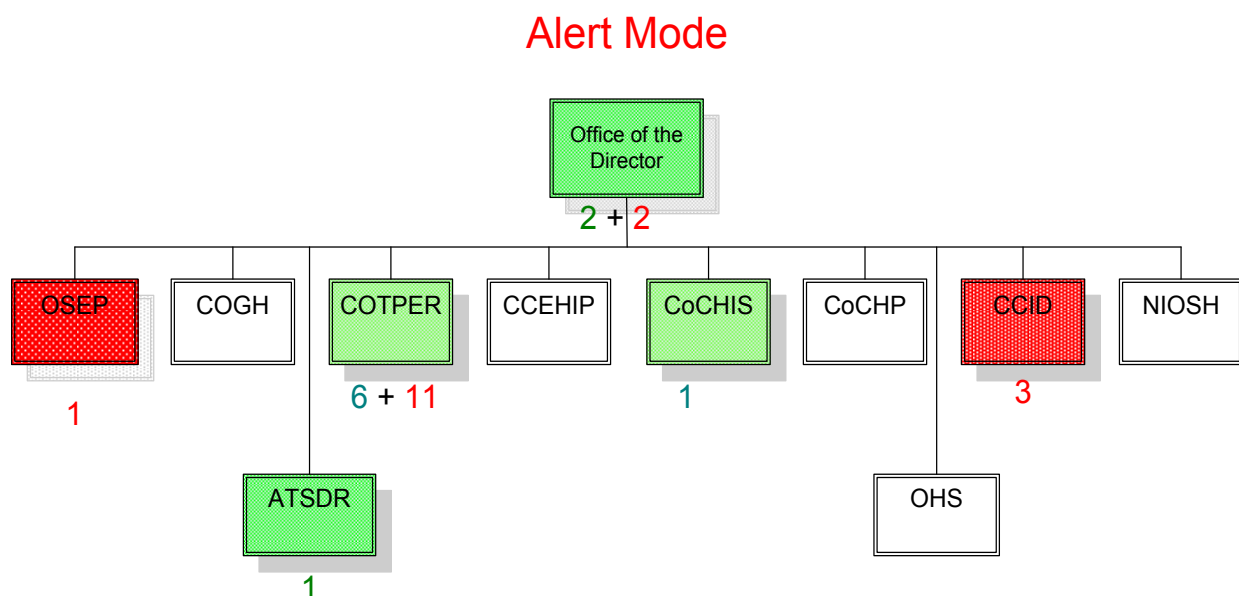




Diagram 4: CC/CO/NIOSH Support of DEOC Alert Mode





APPENDIX 3 (RESPONSE MODE) TO ANNEX A

1. OVERVIEW

- a.** In the Response Mode during an influenza pandemic, upon the direction of the CDC Director, the Incident Manager and the Chief Health Officer (CHO) will establish the required incident command structure needed to provide coordination and support of the incident. The structure will be expanded or contracted to meet the changing needs of the incident.
- b.** The Incident Manager and Logistics Section Chief, in collaboration with the CHO and the State or regional Senior Management Official (SMO), may determine that an Incident Support Team (IST) is needed in the field to provide general logistics support for CDC emergency response teams. If deployed, this team will be the logistics link between field teams and CDC's Logistics Coordination Center. The IST will report to the SMO or designee and manage the field support requirements.
- c.** In support of the IMS, the Planning Section will coordinate a standard Incident Action Plan (IAP) for an approved operational period determined by the Incident Manager.
- d.** During the response, the Public Response Hotline (800-CDC-INFO), which is coordinated and managed by CDC's National Center for Health Marketing (NCHM) within CCHIS will interact with and receive information from the DEOC JIC to provide health-related responses to public queries.
- e.** The DEOC will serve as the formal communications conduit regarding SNS when stockpile assets are required.

2. STAFFING

- a.** Based on guidance from the CDC Director and/or COTPER Director, the Incident Manager and CC/CO/NIOSH ECs will increase staffing for continuous and sustained operations. The expanded DEOC and IMS staffs will manage the response.
- b.** Additional staff and liaisons from Federal, SLTT, and international agencies and organizations may be requested to occupy staffing positions in the DEOC to facilitate interagency





coordination within guidelines established by HHS/OS and other applicable Federal operating and response plans and agreements.

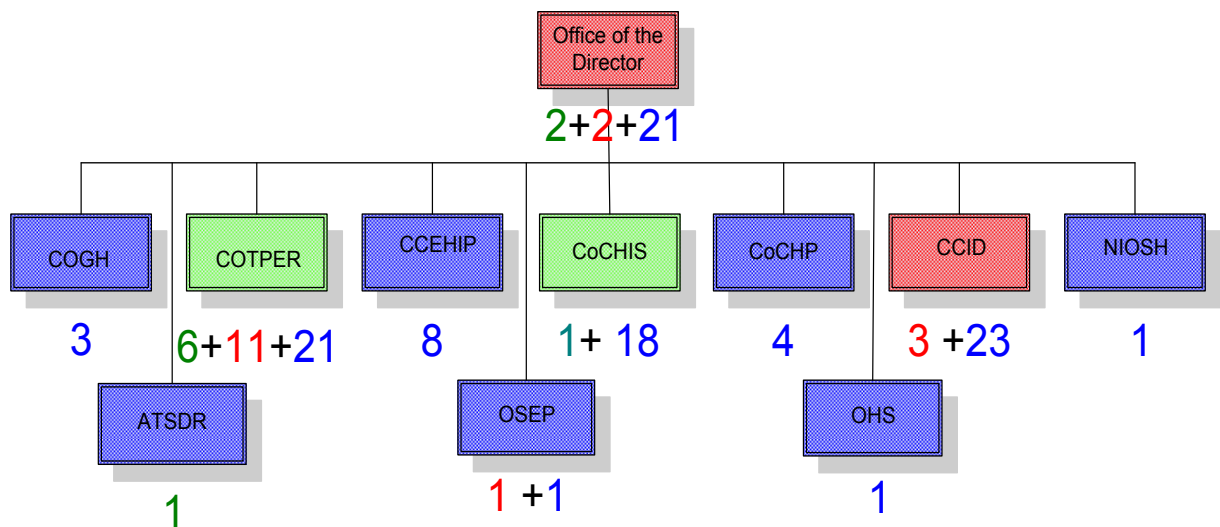
- c. The matrix of Table 4 and the Organizational Diagram 5 reflect a fully staffed Incident Management Structure in the DEOC.
- d. The response mode has three tiers of management and response. Each tier is considered a level of activation.
 - 1) Tier 1: Management is provided from within the CC/CO/NIOSH. Designated science lead heads the collection, analysis and dissemination of information. A small number of personnel are deployed from within the CC/CO/NIOSH. Additional assistance is provided across the Coordinating Centers to include the DEOC (logistics, report monitoring and assistance with deployment).
 - 2) Tier 2: CDC Incident Manager (IM) is identified to coordinate multiple functional teams. Teams are dedicated to the incident. A relatively small number of deployments are required. Management and team staffing is a mix of DEO personnel and personnel from across CC/CO/NIOSH.
 - 3) Tier 3: CDC IM is identified. Functional representation from across CDC is in the DEOC. Incident could last several months. Clearly the DEOC staffing during a protracted period envisioned for a pandemic will be situation dependent. The IM is ultimately responsible for adjusting the manning of the DEOC to recognize personnel limitations while still ensuring control of and communication with CDC assets deployed against the pandemic.





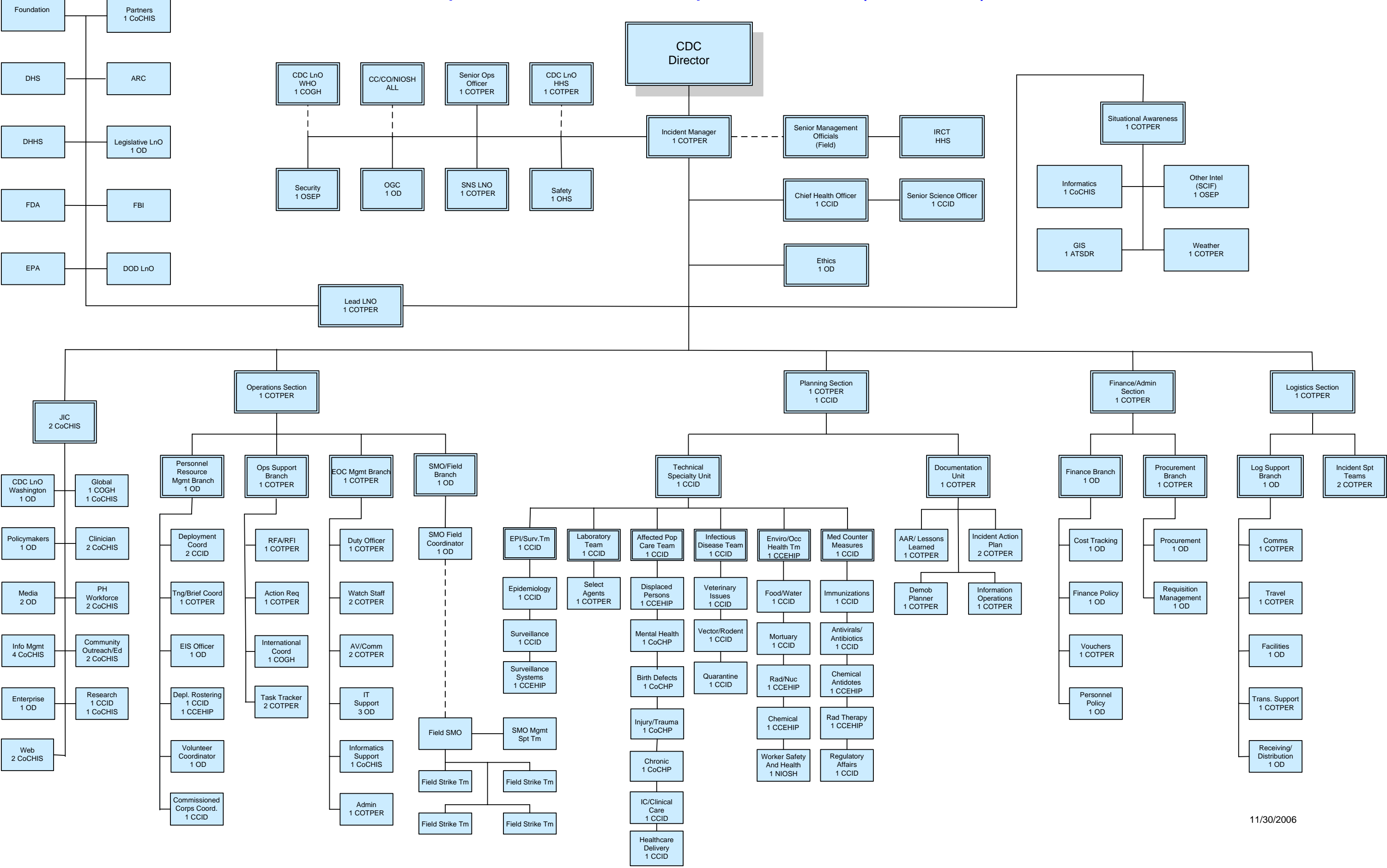
Diagram 5: CC/CO/NIOSH Support of DEOC Response Mode

Response Mode



RESPONSE MODE MATRIX												
	OD	CCID	COTPER	CoCHIS	CoCHP	CCEHIP	NIOSH	COGH	OSEP	OHS	ATSDR	TOTAL
Executive Incident Management Group												
Incident Manager			1									1
Ethics	1											1
CDC LnO to HHS			1									1
CDC LnO to WHO								1				1
Chief Health Officer		1										1
Senior Science Officer		1										1
Senior Operations Officer			1									1
Lead LnO			1									1
Legislative LnO	1											1
Partners				1								1
Safety										1		1
Security									1			1
Director, SNS			1									1
OGC	1											1
JIC												
Joint Information Center	4	1		16				1				22
CDC LnO Washington	1											1
Operations Section												
Operations Section Chief			1									1
Personnel Resource Mgmt Branch	3	1+3	1			1						9
Operations Support Branch			2+3					1				6
EOC Management Branch	2+1		5+2	1								11
SMO/Field Branch	2											2
Planning Section												
Planning Section Chief		1	1									2
Technical Specialty Unit		18	1		4	7	1					31
Documentation			6									6
Situational Awareness Section												
Situational Awareness Section Chief			1									1
Informatics				1								1
Other Intel									1			1
GIS											1	1
Weather			1									1
Logistics Section												
Logistics Section Chief			1									1
Support Branch	3		2+1									6
Incident Support Teams			2									2
Finance/Admin Section												
Finance/Admin Section Chief			1									1
Procurement Branch	2		1									3
Finance Branch	2+2		1									5
SUB-TOTAL	25	26	38	19	4	8	1	3	2	1	1	128

Sample All Hazards Response Mode (PANFLU)





APPENDIX 4 (DUTIES AND RESPONSIBILITIES OF LIAISON OFFICERS) TO ANNEX A

1. GENERAL

Within the Incident Management Structure in the DEOC, the liaison officers (LNOs) are responsible for coordinating the flow of information between CDC and other departments and agencies during an influenza pandemic. LNOs will have direct access to the entire IM staff to include the CDC Director, IM, and CHO, if required. LNOs will ensure approval is obtained for any CDC information distributed back to their parent organizations. LNOs are a conduit for information both into and out of CDC as it pertains to their specific parent organization. LNOs will ensure information is disseminated to the Operations (OPNS), PLANS, and Logistics (LOG) chiefs as frequently as necessary to ensure they incorporate situational awareness in their planning efforts and the Incident Action Plan (IAP) as necessary. LNOs cannot commit parent organizations' resources in support of CDC efforts, but will facilitate the coordination of such requests. LNOs are extremely valuable to CDC in that they provide situational updates of actions that their parent organizations are taking. LNOs remain under the command of their parent organizations, but they can be asked to obtain or provide specific information regarding their parent organizations' activities. LNOs may be requested to establish conference calls between CDC and their parent organizations.

2. ROLES

a. Legislative Liaison Unit Leader.

- 1) Filled by: OD/Office of Enterprise Communication (OEC).
- 2) Reports to: Lead/LNO
- 3) Primary coordination points: CDC/W and JIC.
- 4) Roles/Responsibilities:
 - a) Monitor incoming e-mail and distribution for items of legislative interest or concern about influenza pandemic.
 - b) Receive and track all controlled correspondence.





- c) Coordinate with other staff sections to obtain information necessary to respond to executive and legislative inquiries.
- d) Draft responses to Congressional inquiries.
- e) Maintain contact and coordinate with CDC/W.
- f) Coordinate all inquiries with the JIC.

b. CDC Foundation Liaison Officer (LNO).

- 1) Filled by: CDC Foundation.
- 2) Reports to: Lead/LNO.
- 3) Primary coordination points: LOG and finance chiefs.
- 4) Mission. To interface with the CDC Foundation, regarding the emergency response.
- 5) Roles/Responsibilities: Coordinate with CDC partners and foundations for contingency assistance.

c. Policy Liaison Officer.

- 1) Filled by: Office of the Chief Operating Officer (OCCO).
- 2) Report to: IM.
- 3) Primary coordination points: Chief Health Officer, Senior Science Officer, and Senior Operations Officer.
- 4) Mission. To interface with CDC policymakers.
- 5) Roles/Responsibilities:
 - a) Monitor policy decisions for consistency among CC/CO/NIOSH.
 - b) Recommend policy for emerging issues.
 - c) Maintain coordination with OCSO.

d. Director of Strategic National Stockpile

- 1) Filled by: Division of Strategic National Stockpile (DSNS).
- 2) Reports to: IM.
- 3) Primary coordination points: OPNS, PLANS, LOG, and finance chiefs
- 4) Mission. Coordinate with the DEOC staff on behalf of SNS.





5) Roles/Responsibilities:

- a) Advises the IM on issues related to the procurement, distribution, and management of SNS assets.
- b) Assure IM is aware of the most current status of SNS assets.
- c) Obtain SNS release authorization from Director, COTPER, in coordination with the IM.

e. Partners Liaison Officer Team Leader.

1) Filled by: CCHIS/NCHM.

2) Report to: Lead/LNO

3) Primary coordination points: Senior Science Officer and Senior Operations Officer.

4) Mission. Coordinate resources and information to and from public and private sectors.

5) Roles/Responsibilities:

- a) Prioritize group's needs and interests with DEOC.
- b) Disseminate information to sector partners.
- c) Receive, process, and coordinate all inquiries and responses with the applicable SMEs.

f. Senior Management Official Coordinator (SMO LNO) Branch Leader.

1) Filled by: Office of the Chief Operating Officer (OCCO).

2) Report to: OPS Support Branch.

3) Primary coordination points: OPNS, PLANS, LOG, Senior Science Officer, and Senior Operations Officer.

4) Mission: To provide interface with SMOs in the field.

5) Roles/Responsibilities:

- a) Serve as primary contact between field SMOs and the IM staff in the DEOC.
- b) Obtain information from SMOs regarding field activities that SLTT agencies use to monitor health and safety of deployed and SLTT assigned CDC personnel.
- c) Alert the IM of possible upcoming requests for additional resources, and distribute to IM and staff.
- d) Relay requests for assistance from SMOs to IM and staff; coordinate with staff to provide resources officially requested.





g. Department of Defense (DOD) Liaison Officer.

- 1) Filled by: Assistant Secretary of Defense for Health Affairs – ASD (HA).
- 2) Report to: Lead/LNO.
- 3) Primary coordination points: OPNS, PLANS, SNS, and LOG.
- 4) Mission. Interaction between ASD (HA) and CDC Director.
- 5) Roles and Responsibilities:
 - a) Provide overall situational awareness between DOD and specific IM staff in the DEOC.
 - b) Filter and assist in channeling potential requests from the DEOC to the DOD.
 - c) Coordinate issues relative to:
 - (1) Medical surveillance.
 - (2) Epidemiologic modeling initiatives.
 - (3) Laboratory networks (Laboratory Response Network (LRN) and Integrated Consortium of Laboratory Networks (ICLN)).
 - (4) Medical intelligence sharing with the Defense Intelligence Agency/Armed Forces Medical Intelligence Center (DIA/AFMIC).
 - (5) Strategic National Stockpile with ASD (HA) and United States Northern Command (USNORTHCOM).
 - (6) Environmental bio-monitoring.
 - (7) Influenza pandemic planning.

h. CDC Liaison/Washington D. C.

- 1) Filled by: OD.
- 2) Report to: JIC Lead.
- 3) Primary coordination points: JIC, Congressional Liaison, and Senior Science Officer.
- 4) Mission. The CDC/W serves as a base for the Director of CDC and acts as a liaison between CDC and its Washington-based audiences, which include other agencies, associations, policymakers, and others interested in public health.
- 5) Roles and Responsibilities: CDC/W will provide overall leadership and management for policy and legislative matters for CDC. The office will design policy strategies for complex





public health issues to develop plans for CDC's work with Congress and other Washington area organizations (policymakers, agencies, and associations) to advance CDC's public health goals.

i. CDC Liaison to World Health Organization (WHO).

- 1) Filled by: Coordinating Office for Global Health (COGH).
- 2) Report to: IM.
- 3) Primary coordination points: Senior Science Officer and Senior Operations Officer.
- 4) Mission: To assist with the prioritization, development, implementation and direction of WHO global and regional influenza related activities, including those related to surveillance, pandemic preparedness, outbreak response, vaccines, antiviral drugs, and research.
- 5) Roles and Responsibilities:
 - a) Provide technical expertise and assistance on influenza to WHO, Ministries of Health, public health agencies and other entities involved in influenza control activities.
 - b) Promote global awareness about influenza.
 - c) Establish and strengthen lines of communication between organizations involved in efforts to control influenza.

j. CDC Liaison to the Department of Health and Human Services (Office of Public Health Emergency Preparedness)

- 1) Filled by: Coordinating Office for Terrorism Preparedness and Emergency Response (COTPER)
- 2) Report to: HHS/OS (ASPR(EMG))
- 3) Primary coordination point: DEO (IM)
- 4) Mission: To serve as the principal representative of the Director, CDC in the Office of the Secretary, HHS.
- 5) Roles and Responsibilities
 - a) Clarify threat SA (Situational Awareness) from CDC
 - b) Maintain status of SNS and other CDC deployed assets
 - c) Ensure receipt of SA from USG and other HHS agencies which is pertinent to CDC.





- d) Facilitate movement of requests/information between HHS and CDC.
- e) Coordinate mission-critical issues with HHS/OS.





ANNEX B (DISEASE INTELLIGENCE)

1. SITUATION

- a.** Influenza Pandemic Threat: Refer to Appendix 1 (Influenza Pandemic Threat).
- b.** Mission and Intent of Higher and Supporting Organizations: Refer to Base OPLAN.
- c.** Environment: Refer to Appendix 2 (Global Environment).

2. MISSION.

Actively conduct all-source disease intelligence activities (monitoring, requesting information, tasking, analysis, product development, distribution) using all available information sources internal to CDC and the USG, from SLTT partners, international non-governmental organizations (NGOs), foreign governments, and international health agencies. Provide a regular flow of disease intelligence to the Director of CDC, subordinate elements of CDC, supporting Federal authorities and departments, SLTT partners and international cooperating agencies to enable informed decision making and implementation of appropriate actions in the event of an influenza pandemic.

3. EXECUTION

a. Concept of Intelligence Operations.

- 1)** CDC will aggressively establish tasking, requesting, and coordination channels to receive all timely and useful health, laboratory, and other information that can enable the earliest possible domestic detection of human and animal infection, provide daily situational awareness of an influenza pandemic's national and international spread and impact, and fulfill key items of the Director's Critical Information Requirements. Refer to Base OPLAN 3.d.2.
- 2)** Infection with a novel influenza virus can be diagnosed and the earliest U. S. cases of pandemic influenza can be identified. Laboratories will play a pivotal role in disease surveillance, monitoring the pandemic's geographic spread, and the continued efficacy of medical countermeasures. Laboratory services will facilitate clinical treatment by distinguishing patients with influenza from those with other respiratory illnesses. They will





monitor circulating viruses for the emergence of genetic and antigenic variants, and support development and testing of antiviral drugs and vaccines.

- 3) As disease spreads and sequential stages/phases are declared, CDC will increase its monitoring and analytical capabilities to provide support and presence in the DEOC. Tasks and priorities will be established to ensure all critical disease intelligence is obtained through domestic and international surveillance and monitoring structures and sources. Available CDC surveillance and monitoring assets will be deployed and will respond directly to the DEOC.
- 4) Coordination will be implemented with USG agencies and SLTT governmental authorities to activate information and reporting channels. International Agency and non-governmental organization coordination will be effected to provide a channel for a two way flow of disease intelligence that will facilitate efficient and effective deployment and utilization of countermeasures. CDC DEOC will provide periodic disease intelligence spot reports, disease intelligence daily summaries and status reports, and future projections of disease spread, progression, and severity. Refer to Annex N (Reports and Products).
- 5) Tasks to Subordinate Organizations: Refer to Appendix 3 (Collection Plan).
- 6) Recommendations and Requests for SLTT Organizations: Refer to Appendix 3 (Collection Plan).
- 7) Coordinating Instructions: Refer to Base OPLAN.

b. Critical Disease Intelligence Requirements

1) Inter-Pandemic Period: (Who Phases 1-2; U. S. Stage 0):

- a) Where and when was infection confirmed in migratory birds; what is the current status of disease in migratory birds; and what are the implications for human health?
- b) Where and when was infection confirmed in domestic or commercial animals; what is current status of disease in domestic and commercial animals; and what are the implications for human health?
- c) Where is CDC staff investigating animal infections; what are the epidemiological, clinical, and laboratory statuses of the investigation?





- d) What evidence exists for emergence of mutations in the virus that have implications for human health?

2) Pandemic Alert Period: (WHO Phase 3-5; U. S. Stage 0-1)

- a) In what countries and locations are there confirmed cases of human infection?
- b) In what countries and locations are CDC staff members working on human case/cluster investigations or containment efforts, what is the status of the investigation/effort, and what has been discovered about sources of infection, modes (contact/droplet/airborne) of transmission, risk groups, response to treatment, mortality rate / attack rate and other complications, and local capacity to contain or slow transmission?
- c) What evidence suggests disparate disease effects or emerging stigmatization around any special, vulnerable, or at-risk population groups, including racial/ethnic minorities?
- d) In what countries and locations are there confirmed episodes of infected wild, domestic, or commercial animals; when did each episode begin; is the spread of infection in animals continuing or has it ceased?
- e) Is the sensitivity of surveillance adequate to accurately assess and assure the absence of documented and reported disease?
- f) What evidence shows that genetic mutations in the virus have rendered them resistant to antiviral therapy or have genetic mutations affected viral antigenicity making it resistant to vaccine induced immunity?

3) Pandemic Period: (WHO Phase 6; U. S. Stages 2-6)

- a) Where in the U. S. are SLTT partners working on human case/cluster investigations, quarantine events, or containment efforts and what is the status of the investigation/event/effort?
- b) Where in the U. S. are CDC staff members working on human case/cluster investigations, quarantine events, or containment efforts, what is the status of the investigation / event / effort, and what has been discovered about sources of infection, modes (contact / droplet / airborne) of transmission, risk groups, response to treatment, mortality rate / attack rate and other complications, and local capacity to contain or slow transmission?





- c) Where and in what populations are the first or subsequent pandemic waves increasing, stabilizing, or decreasing and what are the implications for pandemic response?
- d) Where and in what key sector (i.e., socio-economic, racial/ethnic, age group, geographic) is the first or subsequent pandemic wave increasing, stabilizing, or decreasing and what are the implications for pandemic response?
- e) What are the characteristics of adverse events related to antiviral use; what actions have been taken to eliminate them; what are the results of these actions?
- f) What are the characteristics of adverse events related to vaccine use; what actions have been taken to eliminate them; what are the results of these actions?
- g) What are the influenza attack and absentee rates in CDC's work force and how is continuity of operations affected?
- h) Are there confirmed reports of emergence of genetic variants of the virus in the population; if yes, what is its impact on the efficacy of antiviral drugs?
- i) Are there confirmed reports of emergence of antigenic variants of the virus in the population; if yes, what is its impact on the efficacy of the vaccine?
- j) Has a distinct antigenic variant arisen and can CDC provide the required seed material for vaccine production?

c. REPORTS AND PRODUCTS THAT CONTAIN DISEASE INTELLIGENCE INFORMATION.

In the pandemic alert and pandemic periods, it will be critical for CDC decision-makers to have immediate access to all available scientifically analyzed information about developing events including relevant peer reviewed scientific publications. Presenting timely and sound analysis will require utilization of a number of different intelligence products. Refer to Table 7 to Appendix 3 (Disease Intelligence Collection Plan).

1) Incident Action Plan (IAP):

The IAP is the primary incident management document and will normally cover a 24-hour operational period, usually 1700-1700. The IAP will include all appropriate maps, epidemiological graphs, synopses of media stories, etc. The IAP is intended to focus the





incident management staff on tasks/objectives to be accomplished during the upcoming 24-hour period. Refer to Annex N (Reports and Products).

2) Director's Morning Summary:

This daily briefing will draw from the Incident Action Plan covering a 24-hour period. The briefing will be focused on updating the Director and CC Directors regarding the current situation, objectives, planning assumptions, activities that have occurred and the most up-to-date information possible. Refer to Annex N (Reports and Products).

3) Afternoon Update Summary:

This briefing essentially mirrors the Director's Morning Summary in format and purpose, but will be concise and include only those developments that have occurred since the Director's Morning Summary briefing of which the Director and senior CDC policy makers need to be aware and that require analysis. Refer to Annex N (Reports and Products).

4) Situation Reports:

Situation Reports will normally be prepared on a daily basis, at the end of the work day, or at the same time each day, summarizing significant developments for quick reference of all CDC personnel responding to a pandemic event. Normally these will not include detailed analysis, but will be quick snapshots of key happenings. Refer to Annex N (Reports and Products).

5) Spot Reports:

Spot reports will be submitted to the IM for approval before dissemination. Spot reports are alerts to decision-makers regarding fast-breaking developments and would be issued on an urgent basis during a pandemic crisis. Refer to Annex N (Reports and Products).

6) Executive Decision Support Briefs:

In substance, these briefs will be similar to individual items in the Director's Morning Summary, i.e., a description of a development in the event, accompanied by brief analysis. These will be issued on an as-needed basis. Refer to Annex N (Reports and Products).



**7) Executive Decision Support Memoranda:**

These memoranda and products will serve the same general function as the Executive Decision Support Brief, i.e., responding to an inquiry from a decision-maker or providing a vehicle for an analyst to target information toward a specific executive audience. Refer to Annex N (Reports and Products).

8) Long Term Analyses:

While these reports will also address breaking events in a pandemic, they will focus on broader or longer term implications of the event. Their primary purpose will be to provide a wider perspective to policy makers on fast-moving events. Refer to Annex N (Reports and Products).

9) Travel Briefings:

OSEP will provide reports and briefings that will be comprehensive, all-source medical, public health, and security assessments on specific countries for the purpose of informing CDC staff being deployed abroad of the health and security situations they are likely to encounter on arrival. OSEP will provide the personal security information, site situational awareness, and respond to other requests for information, both classified and unclassified events. Refer to Annex N (Reports and Products).

10) Media Updates:

These public health updates are designed to keep the general public apprised of the overall health information situation. This public health information will be provided to media outlets, including the internet. Refer to Annex N (Reports and Products).

11) Surveillance Data Reporting:

The Technical Specialty Unit within the IMS Planning Section will aggregate surveillance data from State Epidemiologists and will report to the SA Section and other interested parties. The SA Section will provide the latest epidemiological information for inclusion in the IAP.

Refer to Annex N (Reports and Products).



**12) Field Reports:**

Field Reports provide information to the IM and CDC Staff concerning field operations where CDC personnel have been deployed. Refer to Annex N (Reports and Products).

4. SUPPORT SERVICES

Refer to Base OPLAN and Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

- a.** A Sensitive Compartmented Information Facility (SCIF) is available adjacent to the DEOC as a repository for Special Intelligence Documents. Secret Internet Protocol Router Network (SIPRNET) World-Wide and Joint Worldwide Intelligence Communications System (JWICS) capabilities are also available within the same facility.
- b.** Liaison with governmental intelligence agencies must be coordinated through the Office of Security and Emergency Preparedness (OSEP).
- c.** Secure video teleconferencing (VTC) and telecommunications are available within the SCIF.
- d.** Executive Intelligence Briefings will be collected, analyzed, produced and briefed by OSEP personnel.

APPENDIXES:

- 1. Influenza Pandemic Threat Estimate.
- 2. The Global Environment.
- 3. Disease Intelligence Collection Plan.
- 4. Laboratory Services.





APPENDIX 1 (INFLUENZA PANDEMIC THREAT ESTIMATE) TO ANNEX B

1. INFLUENZA PANDEMIC THREAT ESTIMATE

Influenza viruses have threatened the health of animal and human populations for centuries. Their genetic and antigenic diversities and their ability to change rapidly due to genetic re-assortment and mutations make it very difficult to develop a universal vaccine and highly effective antiviral drugs. Each year an estimated 36,000 deaths and 226,000 hospitalizations occur in the United States, notwithstanding the wide-scale availability of effective seasonal influenza vaccines and antiviral drugs.

A pandemic can occur when a novel strain of influenza virus emerges with the ability to infect humans, cause illness, and readily spread from person to person. Because of lack of prior immunity to the novel virus and its ability to spread to all parts of the world rapidly, such a virus can result in a pandemic. Each of the three pandemics in the last century resulted in infection of approximately 30 percent of the world population and death in 0.2 percent to 2 percent of those infected. Based on this information and current models of disease transmission, a current influenza pandemic could result in deaths of 200,000 to two million U. S. citizens.

2. PANDEMICS OF THE 20TH CENTURY

When a highly contagious virus is introduced into populations that have little if any immunity, universal susceptibility to infection results in widespread transmission and, if virulence is high, a severe pandemic results. The disease spreads to all parts of the world very quickly, usually within less than a year, and causes illness in more than a quarter of the total population. It is this abrupt upsurge in illness, outstripping the capacity to respond, that makes pandemics so disruptive, in addition to the excess mortality they invariably cause. Avian viruses were involved in the last three pandemics.

a. The Pandemic of 1918-1919.

The 1918-1919 influenza pandemic is generally regarded as the deadliest disease event in human history. In less than one year, influenza killed 40 million people worldwide. Many of the deaths were from pneumonia caused by secondary bacterial infections. The virus H1N1 also caused





primary viral pneumonia, with extensive hemorrhage in the lungs, which was an underlying cause of death in healthy individuals. This form of viral pneumonia often killed healthy individuals in less than 48 hours. Ninety-nine percent of deaths occurred in people younger than 65 years.

With no antibiotics or vaccine available, control efforts worldwide were limited to isolation, quarantine, good personal hygiene, use of disinfectants, and the prevention of public gatherings. Many people wore gauze masks in public. Public institutions, including schools, were often closed and public gatherings banned. Quarantine and isolation, while widely imposed, did little to stop the spread between or within countries.

Throughout the world, the rate of spread and excess mortality outstripped response capacity at all levels. Although public health interventions delayed the onset of the pandemic, they could not stop it. Over 10 million deaths were reported in densely populated India. Even in sparsely populated sub-Saharan African countries, the epidemic moved easily from port cities to the remote villages, killing 1.5 to 2 million people within weeks. Globally, the human toll was enormous; in many areas, life expectancy dropped by 10 years or more.

New observations of U.S. “escape communities” that experienced very little morbidity or mortality during the second wave of the 1918 pandemic suggest that a policy of protective sequestration, if implemented early enough and long enough, was an effective non-pharmaceutical community mitigation strategy. This was effective mainly in small, somewhat isolated, areas.

Historical analyses of the U.S. pandemic experience have also shown that the timing of community non-pharmaceutical intervention mitigation strategies is a key predictor of effectiveness. Cities that imposed multiple social distancing measures within a few days of discovering the first local cases cut weekly death rates in half compared with cities that waited several weeks to initiate these remedies.



**b. The Pandemic of 1957-1958.**

The pandemic that began in 1957 was caused by H2N2, a less virulent virus than the one responsible for the 1918 pandemic. Vaccines for seasonal epidemics had been developed and were the most effective method for prevention. When used, they reduced the incidence of seasonal influenza by two thirds or more. Antibiotics were available to treat complications, including bacterial pneumonia. In May 1957, WHO received news of extensive influenza epidemics in Hong Kong and Singapore. The epidemics began at the end of February in a single province of China and spread throughout the country in March. Within weeks, laboratories in the WHO network analyzed the virus and identified it as a completely new virus subtype. WHO alerted the world to the onset of a pandemic. Samples of the virus were immediately distributed to vaccine manufacturers throughout the world. This time, pathways of international spread were tracked by the network of laboratories, and the event was accompanied by extensive epidemiological, clinical, and virological studies.

The speed of international spread was swift. Less than six months after the disease reached Hong Kong, every part of the world had documented cases. In tropical countries and Japan, introduction of the virus was followed almost immediately by a succession of outbreaks, quickly resulting in a general community-wide epidemic. In contrast, both Europe and the United States experienced a grace period of at least six weeks before epidemics occurred following the introduction of cases. Epidemiologists believe that an almost silent “seeding” of the population occurred during these weeks. The reasons for the delayed epidemics remain obscure but are thought to be associated with climate and the timing of school holidays. In Europe and the U. S., for example, the epidemics exploded coincident with the opening of schools in September and peaked rapidly. By December, the worst was over, at least for the first wave. Once epidemics began, patterns of morbidity were remarkably similar throughout the world. As with the initial wave in 1918, large numbers of cases occurred and the outbreaks were frequently explosive, but fatalities were much lower. Mortality showed a pattern more characteristic of that seen in seasonal epidemics, with most excess deaths confined to infants and the elderly. During the first wave, cases of illness were concentrated in school-aged children; this was attributed to their





close contact in crowded settings, and not to a particular age-related vulnerability. In most countries, a second wave followed within a month to three months after the disappearance of the first one. This caused very high rates of illness and increased fatalities. The second wave was concentrated in the elderly. Total excess global mortality was estimated at more than two million. In 1918, many countries observed a subset, though smaller, of fatal cases of viral pneumonia with no evidence of bacterial infection. In 1957, however, most such fatalities occurred in persons with underlying disease, and not in the previously healthy.

Vaccines were available in August 1957 in the U. S., in October 1957 in the United Kingdom, and in November 1957 in Japan. The quantities, however, were too small for wide scale use. Moreover, as the disease was so much milder than in 1918, health authorities decided against an expansion of vaccine production to the scale needed for population-wide vaccination.

No country had sufficient vaccine production capacity to cover its entire population, much less to export vaccines elsewhere. Quarantine measures were applied in several countries, managing at best to postpone the onset of an epidemic by a few weeks to two months. The banning of public gatherings and the closing of schools were considered the only measures that could dampen the spread of the pandemic. Even the most extreme option – severe restrictions on international travel and trade – was thought to bring nothing more than a few weeks of freedom from a disease whose international spread might be forestalled, but never stopped. For health authorities, the biggest challenge presented by the 1957 pandemic was the provision of adequate medical and hospital services. Measures to delay the speed of spread and thus flatten the peak occurrence of cases were considered justified if they allowed the maintenance of medical and other essential services.

c. The Pandemic of 1968-1969.

The pandemic that began in 1968 was caused by H3N2 and was even milder than that in 1957. It brought its own set of special epidemiological surprises. The first hint of a pandemic came from a newspaper story, published in the United Kingdom in mid-July 1968, describing a widespread outbreak of acute respiratory disease in southeastern China. That same month the disease spread to Hong Kong, where it reached maximum intensity within two weeks, causing half a million





cases. The virus was rapidly identified as a novel subtype and WHO issued a warning of possible worldwide spread. Initial international spread did resemble that seen during 1957, but there the resemblance ended. Nearly everywhere, clinical symptoms were mild and mortality low. In most countries, the disease spread slowly rather than in the highly visible pattern of explosive outbreaks seen in previous pandemics. In some countries, the impact on absenteeism and on death rates was slight or absent altogether.

The U. S. was the notable exception. The epidemic in the U. S. began in September 1968 in California, carried there by troops returning from Vietnam, and spread eastward to affect the whole country by late December. A significant increase in deaths from influenza-related pneumonia occurred during the first two weeks of January 1969, with deaths concentrated in the elderly. Altogether, around 34,000 pandemic-related deaths, mostly in the elderly, occurred in the United States. Too little vaccine arrived too late. Though vaccine manufacturing began within two months of virus isolation, only 20 million doses were ready when the epidemic peaked in the United States.

In striking contrast, Canada experienced a relatively slight increase in disease incidence and practically no pandemic-related mortality. A similar picture was seen in most parts of Europe, where symptoms were mild and excess deaths negligible. Although accurate mortality estimates are not available, global excess mortality was probably around one million. As the virus was genetically similar to viruses from previous pandemics, including the one as recent as 1957, at least some segments of the world population probably had partial protection either against infection or from severe disease. The occurrence of major epidemics at different times in different parts of the world was another unfortunate but curious feature. Several tropical countries experienced epidemics only at the beginning of 1969. For unknown reasons, Japan experienced numerous imported cases at the start of the pandemic, but was spared a major epidemic until mid-January 1969.





d. Implications for the Next Pandemic.

The past three pandemics appeared suddenly and took the world by surprise. It is reasonable to expect that another novel influenza virus will emerge in the future and cause an influenza pandemic. Influenza A viruses persist in many different animals. Influenza A viruses normally seen in one species can sometimes cross over and cause illness in another species. This creates the possibility that a new virus will develop, either through mutation or mixing of different viruses, in turn creating the possibility for new viral strains that can be highly infective, readily transmissible, and highly lethal in humans.

The full impact of a potential influenza pandemic is difficult to quantify. How the virus will evolve cannot be predicted accurately. During earlier pandemics, significant variations were seen in mortality, severity of illness, and patterns of spread. However, each instance was characterized by a rapid surge and exponential increase in the number of cases within a very brief period of time.

New classes of effective, safe anti-influenza drugs that were not available during the last pandemic are now available. Newer drugs are used widely for seasonal influenza. It is assumed that these drugs will work against a novel influenza virus subtype and these drugs will be a first line of defense during the first wave of a pandemic. However, if a pandemic arrives sooner rather than later, there may not be adequate stockpiled supplies of these drugs. It is also assumed that U.S. industry can produce adequate supplies of an effective pandemic vaccine, but there will be an inevitable delay of between four and six months between the emergence of a pandemic strain and the availability of a vaccine matched to the pandemic virus. Non-pharmaceutical interventions, such as school closure and other forms of social distancing, may play a significant role in slowing viral transmission especially if implemented broadly at the community level early in the pandemic. (Refer to Annex F – Community Intervention)

HHS estimates of morbidity, mortality, and healthcare utilization requirements for pandemics of different severity are noted below. Refer to Table 5





Table 5: Aggregate Number of Episodes of Illness, Health Care Utilization, and Death During Moderate and Severe Influenza Pandemic Scenarios*

Characteristic	Moderate (1958/68-like)	Severe (1918-like)
Illness	90 million (30%)	90 million (30%)
Outpatient medical care	45 million (50%)	45 million (50%)
Hospitalization	865,000	9, 900,000
Intensive Care Unit (ICU) care	128,750	1,485,000
Mechanical ventilation	64,875	745,500
Deaths	209,000	1,903,000

*Estimates based on extrapolation from past pandemics in the United States. Note that these estimates do not include the potential impact of modern interventions.

While a pandemic will lead to a significant toll that is measured in human illness and death, its impact will extend far beyond hospitals, clinics, and doctors' offices. The impact of a pandemic will be pervasive, removing essential personnel from the workplace for weeks. Absenteeism across multiple sectors will threaten the functioning of critical infrastructure providers, the movement of goods and services, and operation of anchor institutions such as schools and universities. This has significant ramifications for the economy, national security, and the basic functioning of society.

The economic repercussions of a pandemic could be significant. The Congressional Budget Office has estimated that a pandemic on the scale of the 1918 outbreak could result in a loss of five percent of Gross Domestic Product, or a loss of national output of about \$600 billion. A pandemic will affect the economy directly through illness and mortality caused by the disease and the associated lost output. It will also result in indirect costs, from actions taken to prevent and control the spread of the virus.

Refer to Avian Influenza: Assessing the Pandemic Threat (WHO, January 2005).





APPENDIX 2 (THE GLOBAL ENVIRONMENT) TO ANNEX B

1. INTERNATIONAL

The world may be on the brink of another influenza pandemic. Health experts have been monitoring a new and extremely severe influenza virus – the H5N1 strain. The H5N1 strain first infected humans in Hong Kong in 1997, causing 18 cases, including six deaths. Since mid-2003, this virus has caused the largest and most severe outbreaks in poultry on record. In December 2003, infections in people exposed to sick birds were identified.

As of 11 July 2007, 318 human cases have been laboratory confirmed in 12 countries in Asia, the Middle East, and Africa, and more than half of these people have died. Most cases have occurred in previously healthy children and young adults. To date, this virus has not spread easily from birds to humans, nor is there evidence of sustained human to human transmission. However, if H5N1 evolves to a form as contagious as seasonal influenza, a pandemic could begin.

a. The Disease in Birds.

Avian influenza is an infectious disease of birds caused by type A strains of the influenza virus. The disease occurs worldwide. While all birds are thought to be susceptible to infection with avian influenza viruses, many wild bird species carry these viruses with no apparent signs of harm. Other bird species, including domestic poultry, develop disease when infected with avian influenza viruses. In birds, the viruses cause two distinctly different forms of disease – one common and mild, the other rare and highly lethal. In the mild form, outbreaks can escape detection unless regular testing for viruses is in place. The second and far less common highly pathogenic form is difficult to miss. Highly pathogenic avian influenza (HPAI) is characterized by sudden onset of severe disease, rapid contagion, and a mortality rate that can approach 100% within 48 hours. In this form of the disease, the virus not only affects the respiratory tract, as in the mild form, but also invades multiple organs and tissues. All 16 HA (hemagglutinin) and nine NA (neuraminidase) subtypes of influenza viruses are known to infect wild waterfowl, thus providing an extensive reservoir of influenza viruses perpetually circulating in bird populations. In wild birds, routine testing will nearly always find some influenza viruses. The vast majority of these viruses cause no harm.





To date, all outbreaks of HPAI have been caused by viruses of the H5 and H7 subtypes. Highly pathogenic viruses possess a tell-tale genetic signature – a distinctive set of basic amino acids in the cleavage site of the HA – that distinguishes them from all other avian influenza viruses and is associated with their exceptional virulence. Not all virus strains of the H5 and H7 subtypes are highly pathogenic, but most are thought to have the potential to become so. Recent research has shown that H5 and H7 viruses of low pathogenicity can, after circulation for sometimes short periods in a poultry population, mutate into HPAI. Considerable circumstantial evidence has long suggested that wild waterfowl introduce avian influenza viruses, in their low pathogenic form, to poultry flocks, but do not carry or directly spread highly pathogenic viruses. This role may, however, have changed very recently: at least some species of migratory waterfowl are now thought to be carrying the H5N1 virus in its highly pathogenic form and are introducing it to new geographical areas located along their migration routes.

Avian influenza viruses are readily transmitted from farm to farm by the movement of live birds, people (especially when shoes and clothing are contaminated), and contaminated vehicles, equipment, feed, and cages. Highly pathogenic viruses can survive for long periods in the environment, especially when temperatures are low.

For disease caused by HPAI, the most important control measures are rapid culling of all infected or exposed birds, proper disposal of carcasses, the quarantining and rigorous disinfection of farms, and the implementation of strict biosecurity measures. Restrictions on the movement of live poultry are another important control measure. The logistics of recommended control measures are most straightforward when applied to large commercial farms. Control is far more difficult under poultry production systems in which most birds are raised in small backyard flocks scattered throughout rural or around urban areas.

Culling is the first line of defense for containing outbreaks. If culling fails or proves impractical, vaccination of poultry in a high-risk area can be used as a supplementary emergency measure, provided quality-assured vaccines are used. The use of poor quality vaccines or vaccines that poorly match the circulating virus strain may accelerate mutation of the virus. Poor quality





animal vaccines may also pose a risk for human health, as they may allow infected birds to shed the virus while still appearing to be disease-free.

Outbreaks in backyard flocks are associated with a heightened risk of human exposure and infection. Poverty exacerbates the problem because households frequently prepare and consume poultry when deaths or signs of illness appear in flocks, which carries a high risk of exposure to the virus. Moreover, as deaths of birds in backyard flocks are common, for a variety of reasons owners may not interpret deaths or signs of illness in a flock as a signal of avian influenza and a reason to alert the authorities. This tendency may help explain why outbreaks in many rural areas have gone undetected for months. The frequent absence of compensation to farmers for destroyed birds further works against the spontaneous reporting of outbreaks and may encourage owners to hide their birds during culling operations.

Extensive culling and vaccination of poultry have been effective, although temporary, strategies for halting avian and human H5N1 disease in some countries. Vietnam is an example of a country that aggressively culled and vaccinated domestic poultry in 2004-2005 after 909 human H5N1 cases were reported. No human case occurred in 2006, but new outbreaks in poultry were rediscovered in late 2006 (and have persisted into 2007) followed by new reports of human illness.

b. The Role of Migratory Birds.

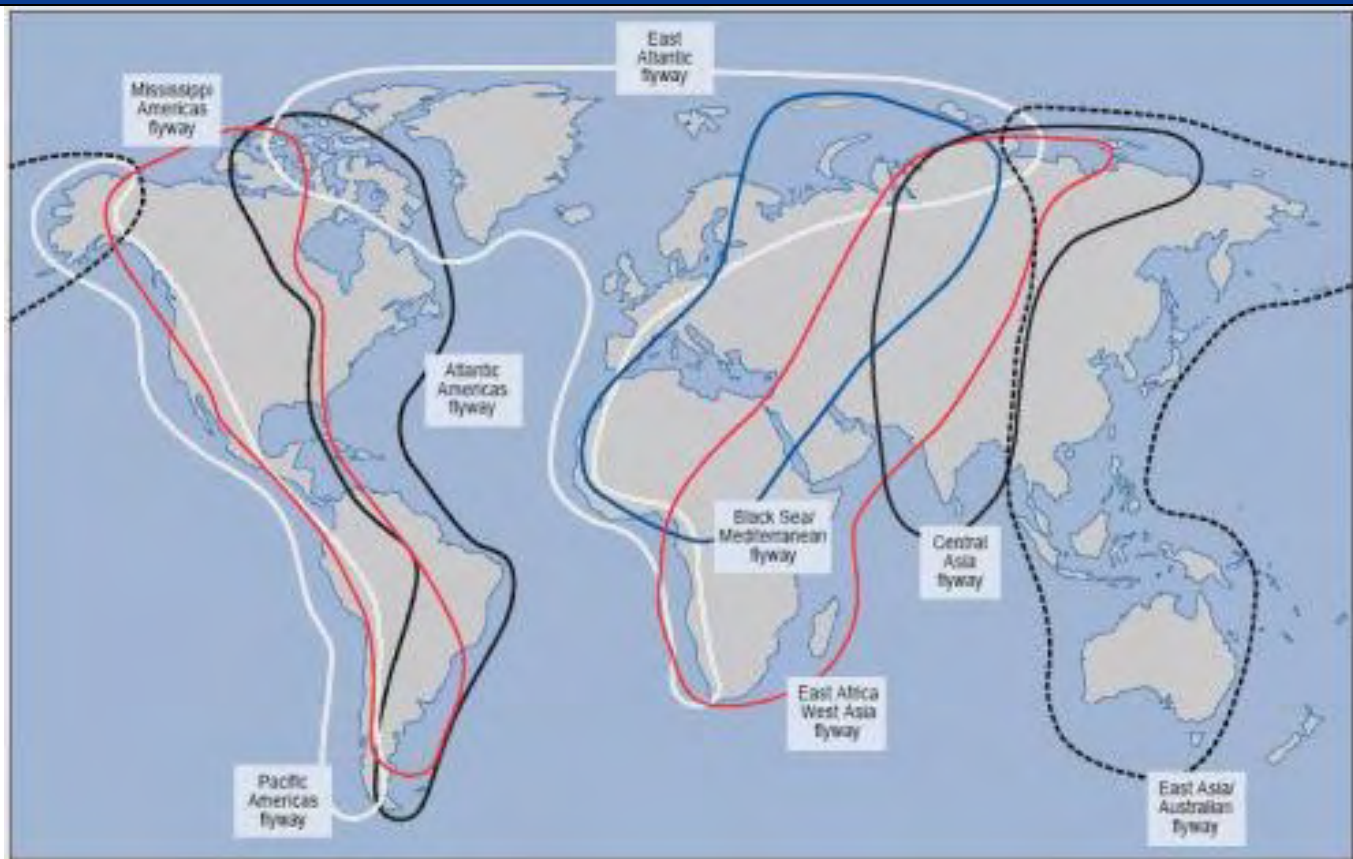
Scientists are increasingly convinced that at least some migratory waterfowl are now carrying the H5N1 virus in its highly pathogenic form, sometimes over long distances, and introducing the virus to poultry flocks in areas that lie along their migratory routes (Figure 1). If this new role of migratory birds is scientifically confirmed, it will mark a change in a long-standing stable relationship between the H5N1 virus and its natural wild-bird reservoir.

Evidence supporting this altered role began to emerge in mid-2005 and has since been strengthened. The death of more than 6,000 migratory birds, infected with the highly pathogenic H5N1 virus that began at the Qinghai Lake nature reserve in central China in late April 2005, was highly unusual and probably unprecedented. Prior to that event, wild bird deaths from HPAI viruses were rare, usually occurring as isolated cases found within the flight distance of a poultry





outbreak. Scientific studies comparing viruses from different outbreaks in birds have found that viruses from the most recently affected countries, all of which lie along migratory routes, are almost identical to viruses recovered from dead migratory birds at Qinghai Lake. Viruses from Turkey's first two human cases, which were fatal, were also virtually identical to viruses from Qinghai Lake. While migratory birds have played a significant role in global spread there is accumulating evidence in Southeast Asia that commercial poultry operations also play a significant role in inter-country spread. There is also the possibility that smuggling of infected poultry could contribute to the spread of avian influenza in commercial flocks.

Figure 1: Global Migratory Bird Flyways

Source: United Nations Food and Agriculture Organization



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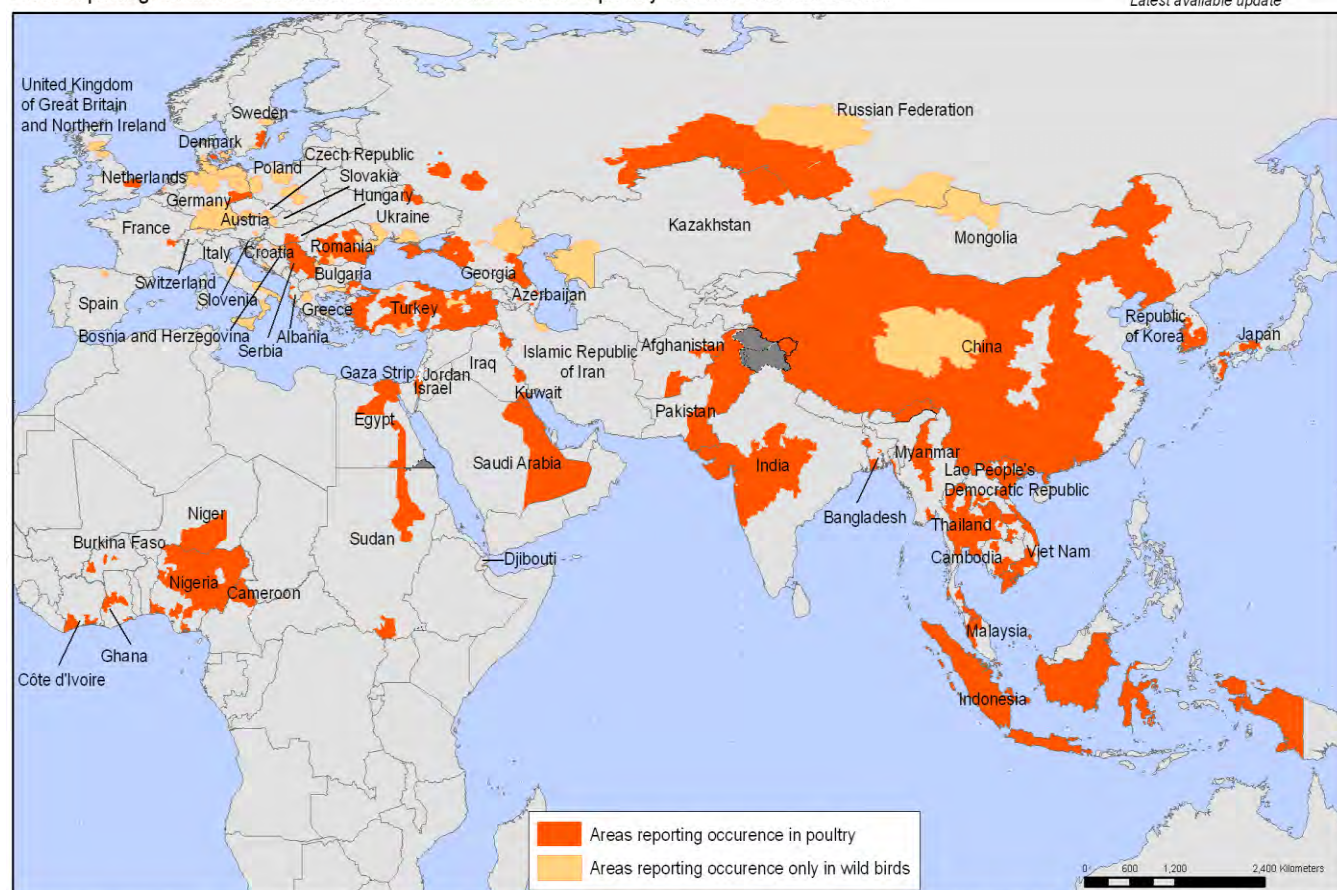
c. COUNTRIES AFFECTED BY OUTBREAKS IN BIRDS.

As of 5 July 2007 Avian H5N1 has been confirmed in 63 countries throughout Asia, the Middle East, Europe, and Africa. No HPAI H5N1 has been detected in the Western Hemisphere.

Figure 2: Nations with Confirmed Cases of H5N1 Avian Influenza (June 2007)

Areas reporting confirmed occurrence of H5N1 avian influenza in poultry and wild birds since 2003

Status as of 8 June 2007
Latest available update



World Health Organization

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The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Data Source: World Organisation for Animal Health (OIE) and national governments

Map Production: Public Health Mapping and GIS

Communicable Diseases (CDS) World Health Organization

Source: <http://www.pandemicflu.gov>



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**d. Countries with Human Cases in the Current Outbreak.**

As of 11 July 2007, 318 human cases have been reported in twelve countries in Asia, the Middle East, and Africa. The first patients in the current outbreak, which were reported from Vietnam, developed symptoms in December 2003 but were not confirmed as H5N1 infection until 11 January 2004. Thailand reported its first cases on 23 January 2004. The first case in Cambodia was reported on 2 February 2005. The next country to report cases was Indonesia, which confirmed its first infection on 21 July 2005. China's first two cases were reported on 17 November 2005; subsequently China reported that additional study revealed a case in November 2003. Confirmation of the first cases in Turkey came on 5 January 2006, followed by the first reported case in Iraq on 30 January 2006. Indonesia experienced 33 confirmed cases and 25 deaths prior to 12 May 2006. Since then, the number of confirmed cases has increased to 101 with 80 deaths reported as of 29 June 2007. Azerbaijan confirmed its first human case on 14 March 2006. The first confirmed case in Africa occurred on 20 March 2006 in Egypt. A second African country (Djibouti) confirmed its first case on 12 May 2006. Nigeria experienced its first death from H5N1 on 31 January 2007. The Peoples Democratic Republic of Laos reported its first human case on 26 February 2007. Most human cases have coincided with outbreaks of highly pathogenic H5N1 avian influenza in poultry. Although, ~60% of the laboratory-confirmed cases have been fatal, Influenza A H5N1 avian influenza in humans is still a rare disease. Refer to Figure 2 and Table 6.





Table 6: Number of Confirmed Human Cases of Avian Influenza A/(H5N1) Reported to WHO; 11 July 2007

Country	2003		2004		2005		2006		2007		Total	
	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths	cases	deaths
Azerbaijan	0	0	0	0	0	0	8	5	0	0	8	5
Cambodia	0	0	0	0	4	4	2	2	1	1	7	7
China	1	1	0	0	8	5	13	8	3	2	25	16
Djibouti	0	0	0	0	0	0	1	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	19	5	37	15
Indonesia	0	0	0	0	20	13	55	45	26	22	102	81
Iraq	0	0	0	0	0	0	3	2	0	0	3	2
Laos PDR	0	0	0	0	0	0	0	0	2	2	2	2
Nigeria	0	0	0	0	0	0	0	0	1	1	1	1
Thailand	0	0	17	12	5	2	3	3	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	12	4
Viet Nam	3	3	29	20	61	19	0	0	2	0	95	42
Total	4	4	46	32	98	43	115	79	54	33	318	192

WHO reports only laboratory-confirmed cases.

e. The Disease in Humans.

Of all influenza viruses that circulate in birds, the Influenza A H5N1 virus is the greatest present threat to human health for two main reasons. First, the H5N1 virus has caused by far the greatest number of human cases of very severe disease and the greatest number of deaths. It has crossed the species barrier to infect humans on at least three occasions in recent years: in Hong Kong in 1997 (18 cases with six deaths), in Hong Kong in 2003 (two cases and one death) and in the current outbreaks that began in December 2003 and were first recognized in January 2004.

A second implication for human health, of far greater concern, is the risk that the H5N1 virus, if given enough opportunities, will develop the characteristics required to start another influenza pandemic. The virus has met all prerequisites for the start of a pandemic except one: an ability to spread efficiently and in a sustained manner among humans. While H5N1 is presently the virus of greatest concern, the possibility that other avian influenza viruses known to infect humans might cause a pandemic cannot be ruled out.





During the first documented outbreak of human infections with H5N1, in Hong Kong, the 18 human cases coincided with an outbreak of HPAI, caused by a virtually identical virus in poultry farms and live markets. Extensive studies of the human cases determined that direct contact with diseased poultry was the source of infection. Human infections ceased following the rapid destruction of Hong Kong's entire poultry population, estimated at around 1.5 million birds. Some experts believe that the drastic action may have averted the beginning of an influenza pandemic at that time.

All evidence to date indicates that close contact with dead or sick birds is the principal source of human infection with the H5N1 virus. Especially risky behaviors identified include the slaughtering, de-feathering, butchering, and preparation for consumption of infected birds. In a few cases, exposure to chicken feces when children played in an area frequented by free-ranging poultry is thought to have been the source of infection. Swimming in water where the carcasses of dead infected birds have been discarded or which may have been contaminated by feces from infected ducks or other birds might be another source of exposure.

f. Clinical Features in Initial Human Cases.

In many patients, the disease caused by the H5N1 virus follows an unusually aggressive clinical course, with rapid deterioration and high fatality. Clinical data from cases in 1997 and the current outbreak are beginning to provide a picture of the clinical features of the disease, but much remains to be learned. The incubation period for H5N1 avian influenza may be longer than that for seasonal influenza, which is generally two to three days. Current data for H5N1 infection indicate an incubation period ranging from two to eight days and possibly as long as 17 days. However, the possibility of multiple exposures to the virus makes it difficult to define the incubation period precisely.

Initial symptoms include a high fever, usually with a temperature higher than 38°C (100.4°F), and influenza-like symptoms. Diarrhea, vomiting, abdominal pain, chest pain, and bleeding from the nose and gums have also been reported as early symptoms in some patients. Watery diarrhea without blood appears to be more common in H5N1 avian influenza than in normal seasonal influenza. In two patients from southern Vietnam, the clinical diagnosis was acute encephalitis;





neither patient had respiratory symptoms at presentation. In another case, from Thailand, the patient presented with fever and diarrhea, but no respiratory symptoms. All three patients had a recent history of direct exposure to infected poultry.

Many patients have symptoms in the lower respiratory tract when they first seek treatment. Difficulty in breathing develops around five days following the first symptoms. Respiratory distress, a hoarse voice, and a crackling sound when inhaling are commonly seen. Sputum production is variable and sometimes bloody. Most recently, blood-tainted respiratory secretions were observed in a patient in Turkey. Limited data on patients indicates the presence of a primary viral pneumonia in H5N1, usually without microbiological evidence of bacterial superinfection at presentation. Turkish clinicians also reported pneumonia as a consistent feature in severe cases; as elsewhere, these patients did not respond to treatment with antibiotics.

For treatment of seasonal human influenza, antiviral drugs, i.e., oseltamivir and zanamivir can reduce the duration of viral replication and speed the resolution of symptoms provided they are administered within 48 hours following symptom onset. Limited evidence suggests that these drugs can improve prospects of survival of humans infected with avian influenza virus.

However, prior to the outbreak in Turkey, most patients were detected and treated late in the course of the illness. For this reason, clinical data on the effectiveness of oseltamivir are limited. Assembling the evidence on whether antiviral drugs would be more effective in treating human infection with H5N1 viruses, if given at higher doses and for longer periods of time than is recommended for seasonal human influenza, is an urgent priority and this is being undertaken by WHO. Refer to Avian Influenza Fact Sheet (WHO, February 2006) and <http://www.who.int/mediacentre>.

g. Genetic Characteristics of Recent H5N1 Viruses

The hemagglutinin (HA) sequences of the majority of H5N1 viruses circulating in avian species during the past 3 years separated into two distinct phylogenetic clades (genetic groups). Clade 1 viruses circulating in Cambodia, Thailand and Viet Nam were responsible for human infections in those countries during 2004 and 2005. Clade 2 viruses circulated in birds in China and Indonesia during 2003 – 2004 and subsequently during 2005 – 2006 spread westwards to the



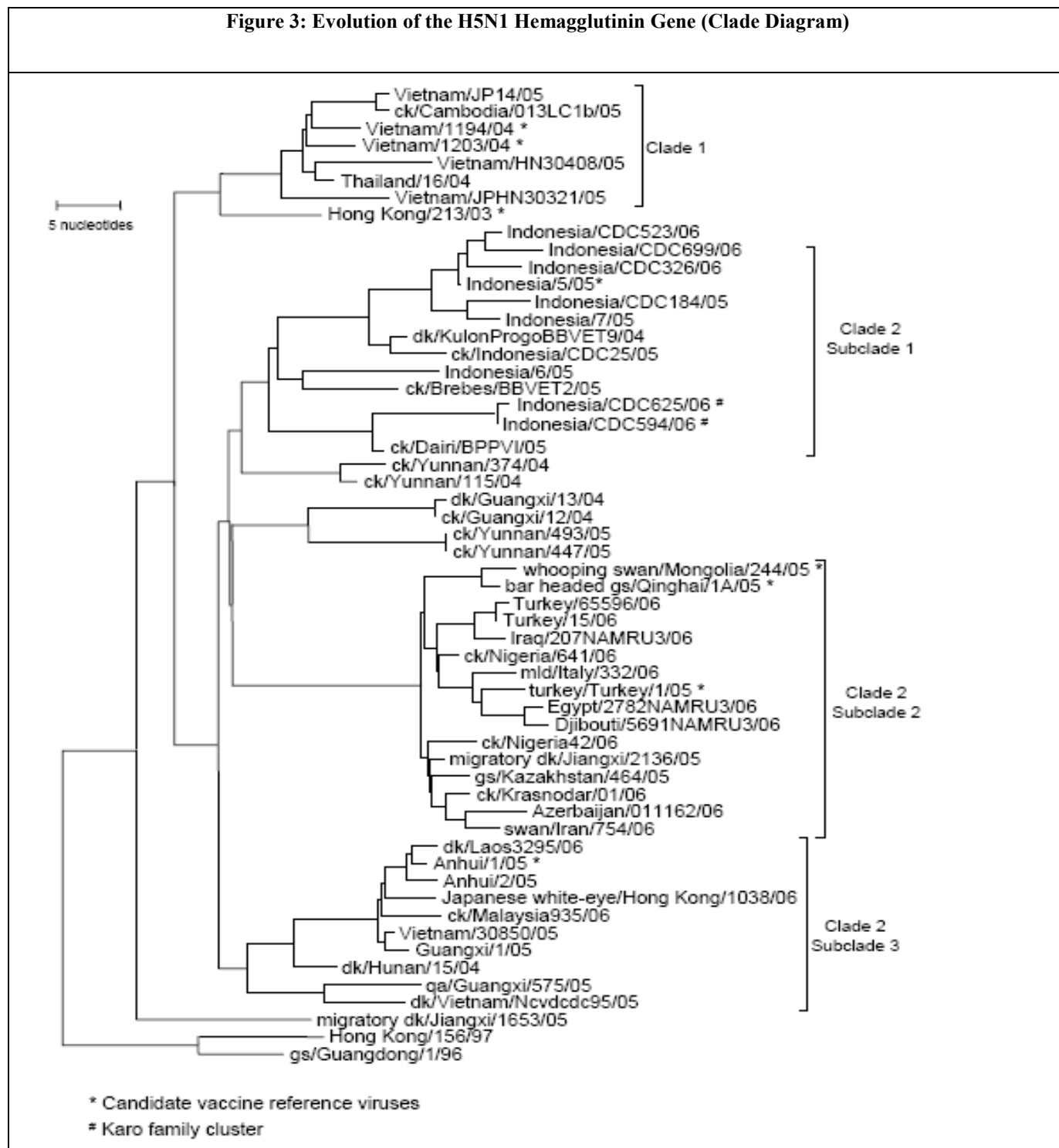


Middle East, Europe and Africa. This latter genetic group of viruses has been principally responsible for human infections during the later part of 2005 and 2006. Six sub-clades of clade 2 have been distinguished, three of which (subclades 1, 2, and 3) also differ in geographical distribution and have been largely responsible for human cases in Indonesia, in countries in the Middle East, Europe and Africa, and in China, respectively (figure 3: Evolution of the H5N1 hemagglutinin gene (Clade Diagram)).

These avian viruses lack the ability to spread easily from person-to-person (and in some cases did not produce a severe human infection) and therefore have not precipitated larger outbreaks or a pandemic. Pandemic viruses can also arise due to genetic re-assortment between human and animal influenza viruses. This can occur when a single animal or person is co-infected by both a human influenza virus and an avian influenza virus. Re-assorted viruses have been frequently identified and are thought to have been responsible for the 1957 and 1968 pandemic viruses.



Figure 3: Evolution of the H5N1 Hemagglutinin Gene (Clade Diagram)





2. NATIONAL

- a.** HPAI influenza A H5N1 has not been detected either in wild, domestic, or commercial animals, or humans in the United States. Based upon the historical experience, computer modeling, and given the ease, speed, and frequency of international travel, a pandemic influenza virus is very likely to spread rapidly to the United States with the onset of the next pandemic.
- b.** It is clear that an influenza pandemic has the potential to pose disease control challenges unmatched by any other natural or intentional infectious disease event. Without adequate planning and preparations, an influenza pandemic in the 21st Century has the potential to cause enough illnesses to overwhelm current public health and medical care capacities at all levels.
- c.** Several factors are critical to understanding the potential impact of a pandemic in the United States. First, the United States' population is large and increasingly urbanized and concentrated, allowing viruses to be transmitted easily within populations. Second, levels of international travel are much greater than in the past, allowing viruses to quickly spread globally. Third, the U.S. population is comprised of increasing numbers of immunocompromised persons, elderly persons, and persons with chronic medical conditions, thus increasing the potential for more complicated illnesses and deaths to occur. This combination of factors suggests that the next pandemic may lead to more illnesses occurring quicker than in the past, overwhelming the country and its health systems if it is not adequately prepared.





APPENDIX 3 (DISEASE INTELLIGENCE COLLECTION PLAN) TO ANNEX B
THIS DISEASE INTELLIGENCE COLLECTION PLAN IS MADE UP OF FOUR DISTINCT PARTS:

- 1) A description of international disease surveillance and monitoring activity.
- 2) A description of domestic disease surveillance and monitoring activity.
- 3) A comprehensive list of sources of disease intelligence including internal CDC sources, other USG sources, international sources, SLTT, and non-government organization sources.
- 4) A collection plan tasking/requesting matrix that captures the collection requirement, the agencies capable of responding to the requirements and the status of the tasking or request for such information.

1. INTERNATIONAL DISEASE SURVEILLANCE AND MONITORING

Reference: Implementation Plan for the National Strategy for Pandemic Influenza, Chapter 4

a. SITUATION

- 1) Avian Influenza A (H5N1) is currently the major pandemic threat and the current focus of global surveillance and containment efforts.
- 2) Rapid containment of avian influenza A (H5N1) outbreaks in poultry is likely to be the most effective method for preventing spread to other countries, reducing opportunities for avian-to-human infection, and developing of sustained human-to-human transmission.
- 3) Efficient and sustained human-to-human transmission of a novel influenza A virus such as H5N1 may signal an imminent pandemic.

b. AGREED EPIDEMIOLOGICAL “TRIGGER” FOR INTERNATIONAL RESPONSE AND CONTAINMENT

- 1) WHO stated that containment will be strongly considered in the following circumstances:
- 2) Moderate to severe respiratory illness (or deaths) in three or more health care workers who have no known exposure other than contact with ill patients, and laboratory confirmation of infection (novel influenza virus) in at least one of these workers.





- 3) Moderate-to-severe respiratory illness (or deaths) in 5 to 10 persons with evidence of human-to-human transmission in at least some, and laboratory confirmation of infection (novel influenza virus) in more than two of these persons.
- 4) Compelling evidence that more than one generation of human-to-human transmission of the virus has occurred.
- 5) Isolation of a novel (influenza) virus combining avian and human genetic material or a virus with an increased number of mutations not seen in avian isolates from one or more persons with moderate-to-severe respiratory illness (acute onset) supported by epidemiological evidence that transmission patterns have changed.
- 6) Community outbreaks of human H5N1 infection (e.g., >5 cases not involving members of the same household).
- 7) One or more instances of sustained human-to-human transmission.

c. SURVEILLANCE FOR AND CONTAINMENT OF A POTENTIALLY PANDEMIC INFLUENZA A SUBTYPE IS DEPENDENT ON:

- 1) The rapidity of initial discovery of avian infections/deaths due to HPAI.
- 2) The rapidity of initial discovery of human infections/deaths suspected of being related to HPAI.
- 3) The rapidity of confirmation of a novel influenza subtype as the etiologic agent of these human infections/deaths.
- 4) The rapidity of effective human containment efforts.
- 5) Determining the etiology of these human infections; i.e., avian (or other mammalian species)-to-human transmission vs. human-to-human transmission.
- 6) Containment of H5N1 outbreaks (animal and human) in the country or region of origin is of primary importance. When a case or cluster of human H5N1 infection is detected, ongoing local disease surveillance efforts must be sufficiently robust to evaluate the effectiveness of community containment efforts. If local efforts are insufficient, public health authorities must be prepared to support ongoing surveillance efforts in the affected country or region. Country laboratories are key assets for detecting and confirming novel influenza strains. If sustained





human-to-human spread of H5N1 is detected, the international public health community must be prepared to assist the affected country by mounting a major effort to contain or slow the spread of disease.

- d. MISSION.** Limit spread of pandemic influenza virus in animals, prevent animal-to-human, and human-to-human spread outside the United States and delay or prevent introduction of the virus into the United States.

e. CONCEPT OF OPERATIONS

- 1) It is anticipated that WHO will coordinate global efforts to detect and report suspected cases, using standardized case definitions and reporting protocols.
- 2) Obtain reports on potential cases of pandemic influenza from public health and veterinary authorities, poultry workers and the public.
- 3) Engage non-traditional groups such as nature societies, the media, and civic organizations in avian influenza surveillance activities.
- 4) Ensure that cases and clusters of human infection with H5N1 are promptly detected, reported, and investigated.
- 5) Identify patients with risk factors for disease caused by pandemic influenza.
- 6) Detect each and every case and cluster (family, healthcare, or institutional) especially during the Pandemic Alert Period (WHO Phases 3, 4, 5).
- 7) Coordinate village-based human influenza surveillance systems in affected regions.
- 8) Use enhanced laboratory capacity to confirm suspected cases and clusters of human infection with avian influenza.
- 9) Sequence the genomes of avian influenza isolates from humans to detect changes that might affect human-to-human transmissibility (e.g., re-assortment or changes in receptor binding sites).
- 10) Investigate suspected avian influenza A (H5N1) outbreaks in poultry.

2. DOMESTIC DISEASE SURVEILLANCE AND MONITORING

References: Implementation Plan for the National Strategy for Pandemic Influenza – Chapters 5 & 6.



**a. SITUATION**

- 1) All persons living in the U. S. will be susceptible to infection and illness caused by a pandemic influenza virus. Surveillance systems will identify initial cases, facilitate the collection of clinical specimens for virus sub-typing and isolation, and assist in monitoring the disease burden throughout the country and in all age, socioeconomic, racial, and ethnic groups.
- 2) During a pandemic (WHO Phase 6), the clinical attack rate will be 30%. Fifty percent of the individuals who become ill will seek medical advice and/or treatment. Surveillance should focus on healthcare settings to make surveillance feasible and sustainable.
- 3) Risk groups for severe disease and deaths cannot be predicted before a pandemic begins. Surveillance systems are critical to creating ongoing situational awareness and should be comprehensive to allow monitoring of the disease and its complications, including deaths among all age, socioeconomic, racial, and ethnic groups. It should be flexible to allow modifications to focus on specific subgroups, if necessary.
- 4) In an affected community, an initial pandemic wave will last for approximately six to eight weeks. The surveillance needs or focus in each community may change during the course of a pandemic from ensuring rapid detection of first cases and collection of clinical samples for typing to monitoring spread and disease burden, and to recognizing the end of the pandemic period.
- 5) The seasonality cannot be predicted. Sensitive, timely surveillance established in advance of the introduction of a novel influenza virus subtype in the United States will be critical to detect the introduction of the virus. Therefore, pre-pandemic surveillance and classified exchange of surveillance data with the cooperation of USG partners should operate year-round. However, it will be more difficult to detect and evaluate the impact of the virus responsible for the pandemic if it occurs concurrently with seasonal influenza.
- 6) An influenza pandemic occurring in the next few years will likely be caused by influenza A (H5N1) and will originate outside of the United States. However, the ability to detect any novel influenza subtype will be available.





- 7) Surveillance-related activities will vary under different situations and appropriate adjustments will be made to meet those needs.

b. MISSION.

Provide timely and accurate information on the introduction, spread, and impact of a pandemic virus in animals and humans in the United States, characterize its epidemiologic, clinical, and virologic characteristics, and determine the evolution of genetic and antigenic variants of the virus.

c. CONCEPT OF OPERATIONS

- 1) Establish, enhance, or utilize sensitive, timely, and comprehensive laboratory, epidemiologic, and clinical information systems and sources required to reliably detect and monitor the occurrence of pandemic influenza among initial human cases as well as widely affected communities.
- 2) Ensure that testing by real time reverse transcriptase – polymerase chain reaction (RT-PCR) for H5N1 and other influenza viruses with pandemic potential is available at state public health laboratories, LRN laboratories, and CDC.
- 3) Provide guidance to ensure that Federal, SLTT, and private sector medical facilities have protocols in place for transporting influenza specimens to appropriate LRN reference laboratories.
- 4) Mitigate sustained transmission of pandemic influenza in the general population.
- 5) Assess effectiveness of treatment guidelines, vaccines, antiviral drugs, and public health interventions.
- 6) Determine antigenic and genetic changes in circulating influenza viruses over time, particularly for possible antiviral and vaccine resistance patterns.
- 7) Monitor and report all adverse events related to use of antiviral drugs or vaccine.
- 8) Provide ongoing information from the national influenza surveillance system on a pandemic's impact on health and the healthcare system.





3. LIST AND DESCRIPTION OF EACH POTENTIAL REPORTING AGENCY THE U.S. INFLUENZA SURVEILLANCE SYSTEM

a. Allows CDC to:

- 1) Find out when and where influenza activity is occurring.
- 2) Determine what type and subtype of influenza viruses are circulating.
- 3) Detect changes in the influenza viruses.
- 4) Track influenza-related illness.
- 5) Measure the impact influenza is having on severe complications and deaths in the United States.
- 6) Monitor antiviral resistance of circulating strains.

b. CDC, STATE, LOCAL, TERRITORIAL, AND TRIBAL SOURCES

1) CDC Seasonal Influenza Surveillance System.

This system collects and reports virus, morbidity, and mortality information on influenza activity in the United States each week from October through May. CCID (NCIRD and NCPCCID) is responsible for this system. Sources of information include:

a) Laboratory Surveillance.

About 75 WHO and 50 NREVSS collaborating laboratories located throughout the United States report the total number of respiratory specimens tested and the number of positive for influenza types A and B each week. Some laboratories also report the influenza A subtype of the viruses they have isolated and the ages of the persons from whom the specimens were collected. Some of the influenza viruses collected by laboratories are sent to the CDC for more testing.

b) Pneumonia and Influenza Mortality Surveillance.

Each week, the vital statistics offices of 122 cities report the total number of death certificates filed and the number of those for which pneumonia or influenza was listed as the underlying or as a contributing cause of death. The percentage of all deaths due to pneumonia and influenza are compared with a baseline and epidemic threshold value calculated for each week.





c) Influenza – Associated Pediatric Mortality.

Influenza-associated pediatric mortality is a newly added nationally notifiable condition. Laboratory confirmed influenza-associated deaths in children less than 18 years old are reported through the Nationally Notifiable Disease Surveillance System (NNDSS).

d) Influenza-Associated Pediatric Hospitalization.

The New Vaccine Surveillance Network (NVSN) provides population based estimates of laboratory confirmed influenza hospitalization rates for children less than five years old residing in three counties: Hamilton County, OH; Davidson County, TN; Monroe County, NY. Children admitted to NVSN hospitals with fever or respiratory symptoms are prospectively enrolled and respiratory samples are collected and tested by viral culture and RT-PCR. NVSN estimated rates are reported every two weeks.

e) Influenza-Like Illness Surveillance.

Each week approximately 1,000 health care providers around the country report the total number of patients seen and the number of those patients with influenza-like illness (ILI) by age group. For this system, ILI is defined as fever (temperature of >100 degrees F) plus either a cough and/or a sore throat.

f) Emerging Infections Program (EIP).

The EIP Influenza Project conducts surveillance for laboratory-confirmed influenza related hospitalizations in persons less than 18 years of age in 57 counties covering 11 metropolitan areas of 10 states. Cases are identified by reviewing hospital laboratory and admission databases and infection control logs for children with a documented positive influenza test conducted as part of routine patient care.

g) State Influenza Activity Reports.

State epidemiologists report levels of influenza activity in their jurisdictions each week. Influenza activity is reported as no activity, sporadic, local, regional, or widespread.





2) Laboratory Response Network. (NCPDCID)

CDC works with LRN to develop protocols for sub-typing of influenza and to provide diagnostic reagents to national, state, and local public health laboratories required for timely and accurate diagnosis of pandemic influenza virus.

3) Reports of Influenza-like Illnesses on Arriving Conveyances.

Investigates reports of influenza-like illness among passengers arriving at U.S. ports of entry (CCID-)

4) BioSense.

Provides data on influenza activity primarily through collection of close to real time electronic data from sentinel hospital emergency departments and in-patient and out-patient departments. (CCHIS-NCPHI)

5) COGH-Global Disease Detection (GDD)

Serves as the CDC centralized clearinghouse for global pandemic-related influenza outbreak data.

6) OSEP.

Provides classified medical, public health, political, and infrastructure documents as appropriate.

c. UNITED STATES GOVERNMENT AGENCIES

1) US Department of the Interior.

Monitors influenza in wild animals including migratory birds. DOI will also conduct investigations on dead animals and birds to detect whether the cause of death was due to influenza virus infection.

2) US Department of Agriculture.

Conducts surveillance in poultry and other commercial farm animals. It will investigate suspected avian influenza outbreaks in poultry and recommend containment measures.

3) US Department of State.

Will provide relevant information on an influenza pandemic from around the world through its extensive network of information gathering resources.





4) US Department of Defense.

Provides disease intelligence and monitoring through several key medical service hubs and overseas laboratories. DOD has established strong working relationships with the CDC and international health agencies.

a) US Department of Defense Global Emerging Infections Surveillance and Response System. (DOD-GEIS)

Operates a central hub system that leverages the surveillance and response assets of a network of DOD service hubs and overseas medical research units (NAMRU-2 Jakarta, NAMRU-3 Cairo, AFRIMS Bangkok, USAMRU Kenya, and NMRCDC Lima).

b) US Army Center for Health Promotion and Preventive Medicine.

Provides worldwide technical support for implementing military preventive medicine, public health, and health promotion/wellness services.

c) US Army Medical Research Institute of Infectious Diseases.

Participates in support of emerging disease investigations, to protect military personnel and civilians from the threat of infectious diseases.

d) Naval Medical Research Center.

Participates in support of emerging disease investigations to protect military personnel and civilians from the threat of infectious diseases.

e) Naval Environmental Health Center.

Ensures Navy and Marine Corps readiness through leadership in prevention of disease and promotion of health to include updated preventive medicine and vector-borne disease profiles of countries of military importance.

f) US Air Force General Surveillance Office.

Operates the DOD Influenza Surveillance Program to: (1) detect local respiratory outbreaks; (2) provide isolates to the World Health Association; (3) detect emerging strains.





g) US Armed Forces Medical Intelligence Center.

Analyzes and disseminates finished intelligence on foreign disease and environmental conditions through the Defense Intelligence Agency (DIA) and the National Biosurveillance Integration Center (NBIC) in coordination with HHS and CDC. The exchange of classified data will take place via the secure communications and networks within the CDC SCIF.

d. INTERNATIONAL SOURCES

1) WHO-Global Influenza Surveillance Network (GISN).

Laboratories located throughout the world report the total number of respiratory specimens tested and the number positive for influenza types A and B each week. Some laboratories also report the influenza A subtype (H1N1 or H3N2) of the viruses they have isolated and the ages of the persons from whom the specimens were collected. Some of the influenza viruses collected by laboratories are sent to CDC for more testing.

2) Field Epidemiology Training Program (FETP).

Will assist and work with GDD to provide timely and accurate surveillance of an influenza pandemic.

3) International Emerging Infections Programs (IEIPs).

Will assist and work with GDD to provide timely and accurate detection and reporting on pandemic influenza.

4) Regional Emerging Disease Intervention (REDI) Center in Singapore.

Will obtain, analyze and report influenza surveillance data and conduct outbreak investigations to determine the extent and cause of outbreak.

5) US-China Collaborative Program on Emerging and Re-Emerging Infectious Diseases (US-CCPERID).

Will obtain, analyze and report influenza surveillance data and conduct outbreak investigations to determine the extent and cause of outbreak.





6) Food and Agriculture Organization (FAO).

Will provide ongoing surveillance in poultry and other commercial farm animals. Will investigate suspected avian influenza outbreaks in poultry and advise on containment measures around the world.

7) World Organization for Animal Health (OIE).

Will carry out ongoing surveillance in poultry and other commercial farm animals. Will investigate suspected avian influenza outbreaks in poultry and advise on containment measures around the world.

e. NON-GOVERNMENTAL ORGANIZATIONS (NGO)

1) International Red Cross (IRC).

Will provide information on any unusual disease activity to WHO for further monitoring and investigation.

2) American Red Cross (ARC).

Will encourage reporting and provide information on any unusual disease activity to WHO for further monitoring and investigation.

3) Doctors without Borders (MSF).

Will provide information on any unusual disease activity to WHO for further monitoring and investigation.

4) Village Volunteers.

Will provide information on any unusual disease activity to WHO for further monitoring and investigation.

4. DISEASE INTELLIGENCE COLLECTION PLAN MATRIX. (SEE NEXT PAGE)



Critical Disease Intelligence Requirements

[illegible]



APPENDIX 4 (LABORATORY SERVICES) TO ANNEX B

1. SITUATION

- a. Laboratory services are required to develop appropriate and specific diagnostic tests and make them available to various laboratories involved in monitoring and diagnosis of pandemic influenza infection. These services are critical for effective disease surveillance. When combined with other disease related information, they can provide essential and accurate situational awareness.
- b. Pre-pandemic planning is essential to ensure the timeliness of diagnostic testing and the availability of diagnostic supplies and reagents, address staffing issues, and disseminate protocols for safe handling and shipping of specimens. Once a pandemic is underway, the need for laboratory confirmation of clinical diagnoses may decrease as the virus becomes widespread.

2. MISSION.

Through diagnostic testing identify the earliest U. S. cases of an influenza pandemic, support disease surveillance to monitor the pandemic's geographic spread and impact of interventions, facilitate clinical treatment by distinguishing patients with influenza from those with other respiratory illnesses, and monitor circulating viruses for antiviral and vaccine resistance.

3. EXECUTION

a. Concept of Operations.

Laboratory services within CCID will monitor preparedness and laboratory capacity for seasonal influenza and assess surge capacity. Additionally, CCID laboratories will provide technical support to the WHO Influenza Network and international ministries of health and agriculture in analyzing novel avian and human influenza virus isolates with pandemic potential for their antigenicity, Ribonucleic Acid (RNA) sequence, and drug sensitivities, work with SLTT laboratories to ensure that diagnostics for identifying "pandemic alert" strains are available and are used safely and effectively, and provide guidance on biosafety and safe handling of clinical





specimens from potential influenza pandemic related cases. Further, it will interact with FDA to expedite the approval process or seek exemptions for new diagnostics, and other licensure and IDE related issues. This approach will be continuously monitored through all phases/stages of a pandemic and reassessed/changed as required.

b. Tasks to be Performed by CCID During the Inter-Pandemic and Pandemic Alert Periods (WHO Phases 4-6; U. S. Stages 1-6).

1) Provide Support for Laboratories for Seasonal Influenza Surveillance:

CCID will assist SLTT public health laboratories and clinical laboratories to participate in laboratory-based surveillance for new subtypes of influenza through the U. S. -based laboratories in the World Health Organization Global Influenza Surveillance network (WHO-GISN), the National Respiratory and Enteric Virus Surveillance System (NREVSS) and others.

2) Facilitate Laboratory Testing for Novel Influenza Subtypes:

CCID will facilitate proper use of diagnostic testing for a pandemic influenza virus involving a range of laboratory assays, including rapid antigen tests, reverse-transcriptase polymerase chain reaction (RT-PCR), virus isolation, and immunofluorescence antibody (IFA) assays.

a) CCID will provide guidance to SLTT partners, hospitals, and clinicians to enhance their surveillance to identify patients who may present with possible cases of novel influenza, and help prepare to process and test specimens from suspected cases of infection with:

- (1) Avian influenza A (H5N1) and other avian influenza viruses.
- (2) Other animal influenza viruses (e.g., swine influenza viruses).
- (3) New or re-emergent human influenza viruses (e.g., H2) with pandemic potential.
- (4) CCID should provide appropriate assistance when contacted by SLTT health departments after receiving reports of suspected human infection with novel influenza A virus from clinicians. CCID will be contacted via the CDC Emergency Response Hotline: 770-488-7100.

3) Assist in Testing for Human Cases of Avian Influenza:

Recommendations on laboratory testing for human cases of avian influenza are as follows:





- a) CCID should provide guidance on transport of specimens from suspected cases of human infection with novel influenza viruses for testing to public health laboratories with proper biocontainment facilities.
- b) CCID will receive specimens from suspected human cases of avian influenza to identify and subtype influenza A viruses (e.g., H1, H3, H5, and H7) from public health laboratories that lack appropriate bio-containment facilities.

4) Assist in Testing for Human Influenza Strains with Pandemic Potential:

During the Pandemic Alert Period, diagnostic laboratories will be on the alert for new human subtypes of influenza with pandemic potential and CCID should coordinate either directly or through the SLTT laboratories the following activities:

- a) SLTT public health laboratories that can detect human and avian influenza subtypes by RT-PCR should report all unusual subtypes to CCID.
- b) Public health laboratories that can detect human (but not avian) influenza subtypes by Immunofluorescence antibody (IFA) staining or Reverse Transcriptase Polymerase Chain Reaction (RT-PCR) should send influenza A isolates that cannot be sub-typed to CCID.
- c) Public health laboratories should send specimens to CCID if a patient meets the clinical and epidemiological criteria for infection with a novel influenza virus.
- d) If new or re-emergent human influenza strains with pandemic potential are suspected, laboratories should conduct RT-PCR only under BioSafety Laboratory (BSL-2) containment conditions and viral culture only under BSL-3 conditions. Handling certain isolates, such as HPAI, will require working in BSL-3 with enhancements; otherwise specimens must be sent to CCID.

5) Laboratory Reporting:

SLTT health departments that report laboratory-confirmed seasonal influenza cases to CCID use a variety of reporting mechanisms, including faxes, the Public Health Information System (PHLIS), and a web-based NREVSS data-entry system. Cases of novel influenza should be reported to CCID by the same mechanisms.



**6) Distribution of Diagnostic Reagents and Test Information:**

CCID will continue to work with USDA and FDA to address any regulatory barriers to emergency distribution and use of diagnostic tests and reagents during a pandemic. CCID will provide updated preparedness information regarding diagnostic tests and reagents to SLTT public health partners via the Laboratory Response Network (LRN), Association of Public Health Laboratories (APHL), and Health Alert Network (HAN).

7) Laboratory Planning to Support the Response to an Influenza Pandemic:

CCID should assess projected needs for scaled-up diagnostic activity during the early stages of a pandemic, in terms of its laboratory staffing, training, reporting, and supplies, and should develop strategies to address them. CCID should also provide guidance to SLTTs for their planning concerning these issues. Some aspects of this planning, such as surge capacity planning, can be coordinated with bioterrorism preparedness planning.

a) Staffing and Training:

CCID should plan for its own laboratories, and assist SLTTs through guidance, for increased staffing needs. Cross-training personnel during the regular influenza season in the use of rapid diagnostic tests and RT-PCR protocols and in reporting results should be considered. They should also consider recruiting and training temporary staff for employment during a pandemic.

b) Supplies and Equipment:

- (1) All diagnostic laboratories are likely to require additional diagnostic supplies and equipment to process large numbers of samples during the initial stages of a pandemic. Preparedness strategies include:
- (2) Establish the current level of diagnostic supplies, including PPE for laboratory personnel (e.g., gloves, masks).
- (3) Assess anticipated equipment and supply needs, and determine a trigger point for ordering extra resources. Laboratories should also consider the need for back-up sources of supplies if most laboratories in a State or large city rely on the same manufacturer for particular supplies or equipment.





- (4) Determine how consumption of supplies will be tracked during a pandemic.

c) Specimen Management:

Laboratory staff should anticipate receiving a much larger number of specimens in a very short time.

8) Partnerships with Healthcare Providers and Clinical Laboratories:

CCID should continue to build partnerships with healthcare providers, including physicians who participate in the Sentinel Provider Network (SPN) and public health laboratories during the regular influenza season.

a) Assist Clinical and Hospital Laboratories:

- (1) Work with SLTT health departments to address laboratory surge capacity issues and train personnel.
- (2) Provide guidance on the shipment of clearly labeled specimens from patients with suspected novel influenza to SLTT health departments. Advise hospital laboratories NOT to attempt to isolate influenza viruses from patients with suspected novel influenza virus infection.
- (3) Assist in instituting surveillance for influenza-like illnesses (ILI) among laboratory personnel working with novel influenza viruses.

b) Assist State and Local Public Health Laboratories:

- (1) Help enhance laboratory-based monitoring of seasonal influenza virus subtypes.
- (2) Help conduct testing for novel subtypes of influenza viruses only if BSL-3 laboratories (with enhancements when appropriate; i.e., while working with HPAI) are available.
- (3) Assist in instituting surveillance for ILI among laboratory personnel.
- (4) Help conduct preparedness planning to support the response to an influenza pandemic.





c. TASKS TO BE PERFORMED DURING THE PANDEMIC PERIOD.

1) General Responsibilities of CCID:

- a) Work with U. S. and global partners to characterize new influenza pandemic viruses in terms of antigenicity, RNA sequence, and drug susceptibility, and to monitor changes over time.
- b) Provide guidance to diagnostic and SLTT public health laboratories to ensure the availability, and the safe and effective use of diagnostic tests and reagents.
- c) Provide guidance for, and when requested, testing of positive samples, and performing viral isolation, especially at the beginning of a pandemic.
- d) Provide laboratory support for the selection of seed strains to be used in a vaccine against the pandemic virus.
- e) Provide situational reports on current status of international and domestic laboratory capacities and shortfalls that would prevent labs from conducting testing.

2) Laboratory Support for Disease Surveillance:

- a) CCID will develop the required diagnostic tests and make them available. CCID and the LRN will work with SLTT public health departments to make diagnostic testing for the pandemic virus readily available, both at CCID and at SLTT public health laboratories that have implemented RT-PCR protocols.
- b) As soon as a pandemic strain has been identified, the CCID Influenza Laboratory will develop, produce, and disseminate RT-PCR and IFA reagents, as needed. As necessary, CCID and the APhL will also update the RT-PCR protocol currently available to public health laboratories through the APhL website.
- c) As the pandemic continues, CCID will advise SLTTs on when confirmatory testing (i.e., sub typing) is required. This would require planning for surge capacity. Although confirmatory testing will be required when the pandemic begins, the level of testing will decrease as the virus becomes widespread.
- d) CCID will advise SLTTs on the percentage of isolates per week or month that they should send to CCID as part of efforts to monitor changes in the antigenicity and antiviral





susceptibility of the pandemic virus. Throughout the pandemic, CCID will provide updated instructions on the collection of clinical and epidemiological data that should accompany isolates. CCID could ask some SLTT public health laboratories to perform virus isolation or RT-PCR sub typing before sending specimens to CCID.

- e) CCID will work with the U. S.-based WHO collaborating laboratories, NREVSS laboratories, and/or Emerging Infectious Program sites to conduct special studies or establish additional laboratory-based surveillance systems

3) Laboratory Support for Clinicians:

CCID will assist public health laboratories to scale up to manage increased numbers of requests for influenza testing. As part of this effort, CCID will work with SLTT public health laboratories and the LRN to provide clinical laboratories with guidelines for safe handling, processing, and rapid diagnostic testing of clinical specimens from patients who meet the case definition for influenza pandemic. APHL and CDC will work together with the clinical laboratory community to determine effective strategies for clinical laboratory testing and their possible role for providing surge capacity for novel influenza virus testing during a pandemic. If private laboratories perform RT-PCR testing during the early phase of an influenza pandemic, the results should be confirmed in consultation with the state public health laboratory. SLTT health laboratories should provide guidance to healthcare providers on specimen submission and shipment, laboratory result reporting and use of commercial tests.

4) Biocontainment Procedures:

- a) During an influenza pandemic, laboratory procedures should be conducted under appropriate biosafety conditions.
- b) Commercial antigen detection testing for influenza should be conducted using BSL-2 work practices.
- c) RT-PCR testing may be conducted using BSL-2 work practices and virus isolation using BSL-3 practices (with enhancements when required; i.e., working with HPAI).





5) Occupational Health Issues Related to Laboratory Workers:

- a) To protect the health of laboratory workers during a pandemic, public health, clinical, and hospital laboratories should maintain the safety practices used during the Inter-pandemic and Pandemic Alert Periods.
- b) Laboratory procedures should be under appropriate biocontainment conditions.
- c) Routine vaccination with seasonal vaccine of all eligible laboratory personnel who are exposed to specimens from patients with respiratory infections should be encouraged.

6) Partnerships with Healthcare Providers and Clinical Laboratories:

CCID should provide continued guidance and assistance to SLTT public health laboratories, and to clinical and health care laboratories through APhL.

a) Clinical and Hospital Laboratories:

- (1) Provide guidance and support that will be required to scale up and manage increased numbers of requests for influenza testing.
- (2) Provide guidance on shipment of selected specimens from possible influenza pandemic patients to SLTT health departments.

b) SLTT Public Health Laboratories:

- (1) Scale up to manage increased numbers of requests for influenza testing.
- (2) Provide guidelines on all aspects of specimen management and diagnostic testing to healthcare providers and clinical laboratories.
- (3) Monitor the pandemic virus and conduct special studies related to vaccine development, or other aspects of the response





ANNEX C (OPERATIONS)

1. SITUATION

- a. The Influenza Pandemic Threat. Refer to Annex B (Disease Intelligence).
- b. Mission and Intent of Higher and Supporting Organizations. Refer to Base OPLAN.
- c. Environment. Refer to Annex B (Disease Intelligence).

2. MISSION.

CDC will respond to an influenza pandemic by accomplishing assigned roles, responsibilities, functions, goals, and missions in accordance with the CDC Director's intent.

3. EXECUTION

a. Concept of Operations.

CDC will accomplish tasks from HHS/OS, by utilizing its various CC/CO/NIOSH, and coordinate with International/National Partners. (See CDC Influenza Pandemic Action Register)

b. Tasks to subordinate units.

Specified and implied tasks from HHS/OS, Director, CDC, and each CC/CO/NIOSH will be accomplished by internal organizations. (See CDC Influenza Pandemic Action Register and Appendixes 1-10)

c. Coordinating Instructions.

- 1) All tasks (specified and implied) are further identified and associated with CDC Influenza Pandemic Preparedness Goals and Preparedness Objectives. Objectives represent a standard of performance expressed in quantifiable and measurable terms. Actual performance is compared against the objectives. All preparedness objectives have been linked to the six influenza preparedness goals. Each task is associated with a single preparedness goal. Listed below are the Influenza Pandemic Preparedness Goals and Objectives.

a) Prevent:

Increase the use and development of interventions known to prevent human illness from pandemic influenza.





b) Detect and Report:

- (1) Decrease the time needed to detect and report an influenza outbreak with pandemic potential.
- (2) Improve the timelines and accuracy of communications regarding the threat posed by an influenza outbreak with pandemic potential.

c) Investigate:

Decrease the time needed to classify causes, risk factors, and appropriate interventions for those affected by the threat of pandemic influenza.

d) Control:

Decrease the time needed to provide countermeasures and health guidance to those affected by the threat of pandemic influenza.

e) Recover:

Decrease the time needed to restore health services and environmental safety when an influenza pandemic occurs.

- 2) The CDC Influenza Pandemic Action Register database can be utilized to view tasks (implied, specified, and critical) that are directed by HHS/OS and within CDC, which must be successfully accomplished during an influenza pandemic. The Action Register can be accessed through the DEOC Portal, by scrolling down to the Pandemic Influenza Planning Event window, click on CDC Influenza Pandemic Action Register, then select desired report by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register). View data by CC/CO/NIOSH.
- 3) The Action Register may be utilized as a management tool, enabling the Director to track those tasks, issues, and responsibilities from all CC/CO/NIOSH in preparations for the event.
- 4) The ICU under the Office of the Director, CCID, is charged with facilitating, coordinating and planning activities, and tasks associated with this OPLAN. The ICU will have primary responsibility for managing the Action Register and tracking all assigned tasks through to completion and reporting progress towards meeting those tasks to the CDC Director.





Ultimate responsibility/accountability for task accomplishment rests with the designated CC/CO/NIOSH.

4. SUPPORT SERVICES

Refer to Base OPLAN and Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

Refer to Base OPLAN and Appendix 1 (Informatics) to Annex K (Information Management).

APPENDIXES:

1. Office of the Director. (OD)
2. Coordinating Center for Infectious Diseases. (CCID)
3. Coordinating Office for Terrorism Preparedness and Emergency Response. (COTPER)
4. Coordinating Center for Health Information and Services. (CCHIS)
5. Coordinating Office for Global Health. (COGH)
6. National Institute for Occupational Safety and Health. (NIOSH)
7. Coordinating Center for Environmental Health and Injury Prevention. (CCEHIP)
8. Coordinating Center for Health Promotion. (CoCHP)
9. Phased Scenarios.
10. CDC Influenza Pandemic Action Register.



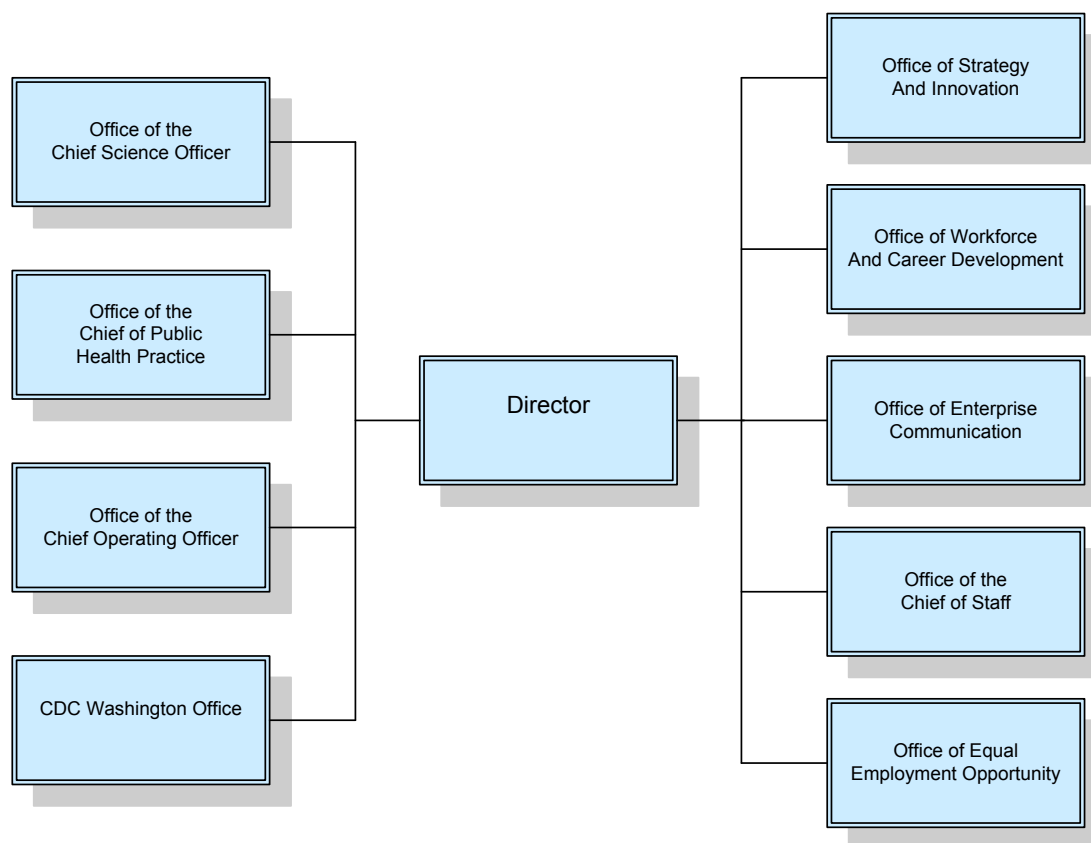


APPENDIX 1 (OD) TO ANNEX C

1. CONCEPT OF OPERATIONS

During an influenza pandemic, the Office of the Director, will maintain overall responsibility for disease prevention and control, and will keep HHS/OS informed and updated on the influenza pandemic actions. The Office of the Director will also coordinate all responses to international and national news media agencies, as well as to its numerous scientific partners. The Office of the Director will utilize the following organizations to accomplish its missions:

Diagram 7: Office of the Director



2. CDC INFLUENZA PANDEMIC ACTION REGISTER (OD)

Accessing CDC Influenza Pandemic Action Register (Management Tool) On Line Instructions:

Enter COTPER/DEOC portal (<http://eocportal.cdc.gov>), scroll down to Pandemic Flu Planning event window, click on Action Register. View data by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register).



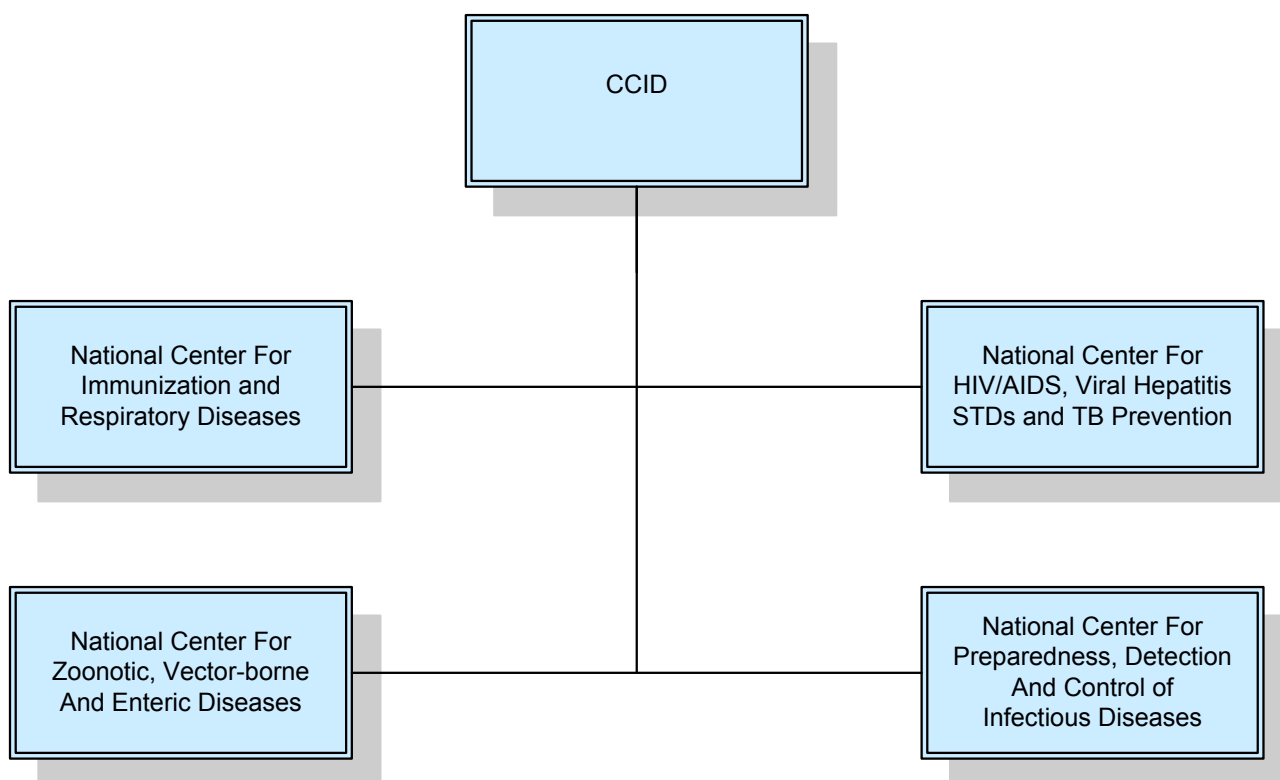


APPENDIX 2 (CCID) TO ANNEX C

1. CONCEPT OF OPERATIONS

During an influenza pandemic, CCID will use its full spectrum of expertise in health surveillance to rapidly notify and alert public health officials of breaking health events. CCID will identify, investigate and respond to the influenza pandemic health threats, including managing ill or exposed travelers at U. S. ports of entry. CCID's medical epidemiologist and laboratorians will exchange vital health information and respond to public health emergencies. CCID will utilize the following organizations to accomplish its missions:

Diagram 8: Coordinating Center for Infectious Diseases



2. CDC INFLUENZA PANDEMIC ACTION REGISTER

Accessing CDC Influenza Pandemic Action Register (Management Tool) On Line Instructions:

Enter COTPER/DEOC portal (<http://eocportal.cdc.gov>), scroll down to Pandemic Flu Planning event window, click on Action Register, View data by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register).



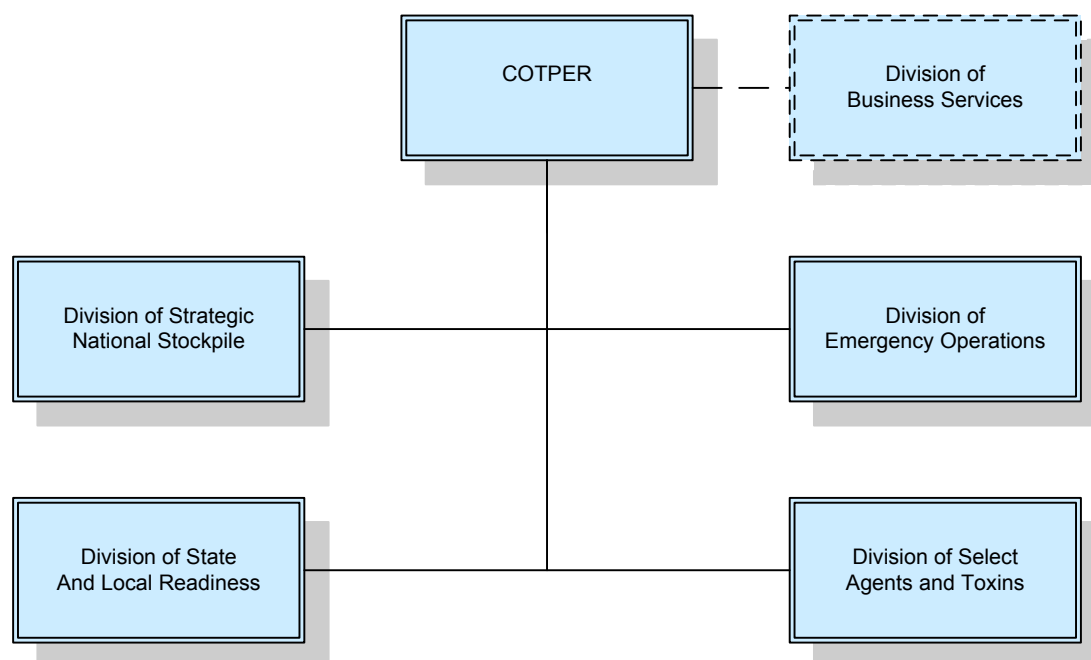


APPENDIX 3 (COTPER) TO ANNEX C

1. CONCEPT OF OPERATIONS

During an influenza pandemic, COTPER will provide strategic direction to support CDC's preparedness and emergency response efforts, manage CDC-wide preparedness and emergency response programs, and communicate preparedness and emergency response activities to internal and external stakeholders. COTPER will continue to foster collaborations, partnerships, integration and resources leveraging to increase the population health goals of CDC. COTPER will maintain concerted emergency response operations, including the Strategic National Stockpile and the Director's Emergency Operations Center. COTPER will utilize the following organizations to accomplish its missions:

Diagram 9: Coordinating Office for Terrorism Preparedness and Emergency Response



2. CDC INFLUENZA PANDEMIC ACTION REGISTER

Accessing CDC Influenza Pandemic Action Register (Management Tool) On Line Instructions:

Enter COTPER/DEOC portal (<http://eocportal.cdc.gov>), scroll down to Pandemic Flu Planning event window, click on Action Register. View data by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register).



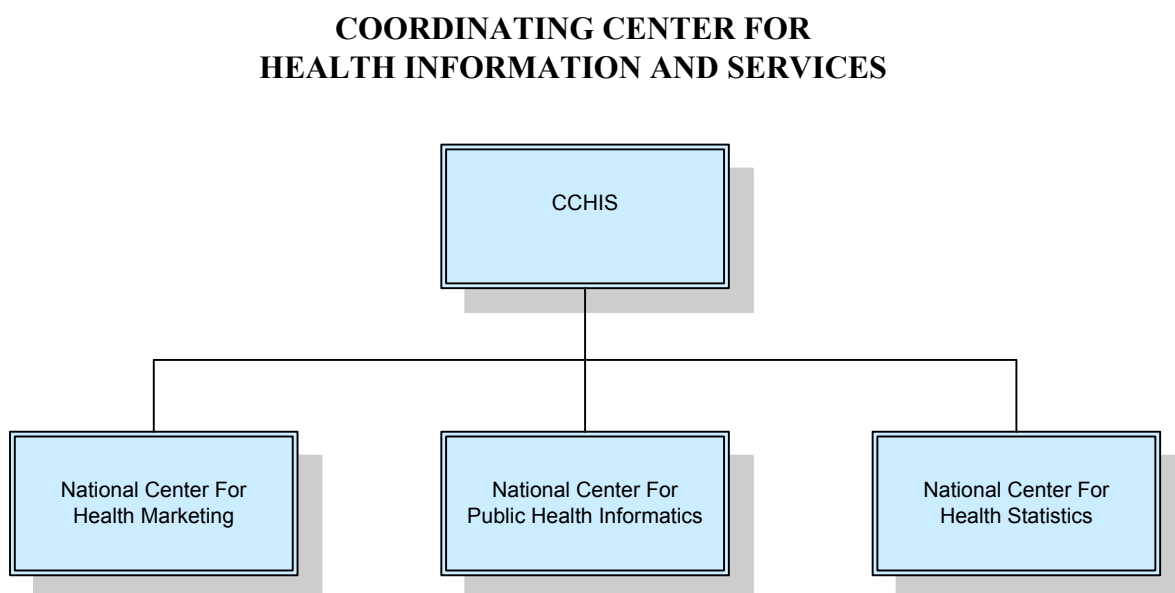


APPENDIX 4 (CCHIS) TO ANNEX C

1. CONCEPT OF OPERATIONS

CCHIS will coordinate provision of information and programs to the public, with specific emphasis on influenza pandemic health and safety issues. CCHIS will assist other CC/CO/NIOSH in identifying and evaluating health needs and interests, and translate them into science-based actions and interventions; in some of these roles, CCHIS will be primarily in a supporting role with other CCs having the lead responsibility. CCHIS will utilize the following organizations to accomplish its missions.

Diagram 10: Coordinating Center for Health Information and Service



2. CDC INFLUENZA PANDEMIC ACTION REGISTER

Accessing CDC Influenza Pandemic Action Register (Management Tool) On Line Instructions:

Enter COTPER/DEOC portal (<http://eocportal.cdc.gov>), scroll down to Pandemic Flu Planning event window, click on Action Register. View data by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register).



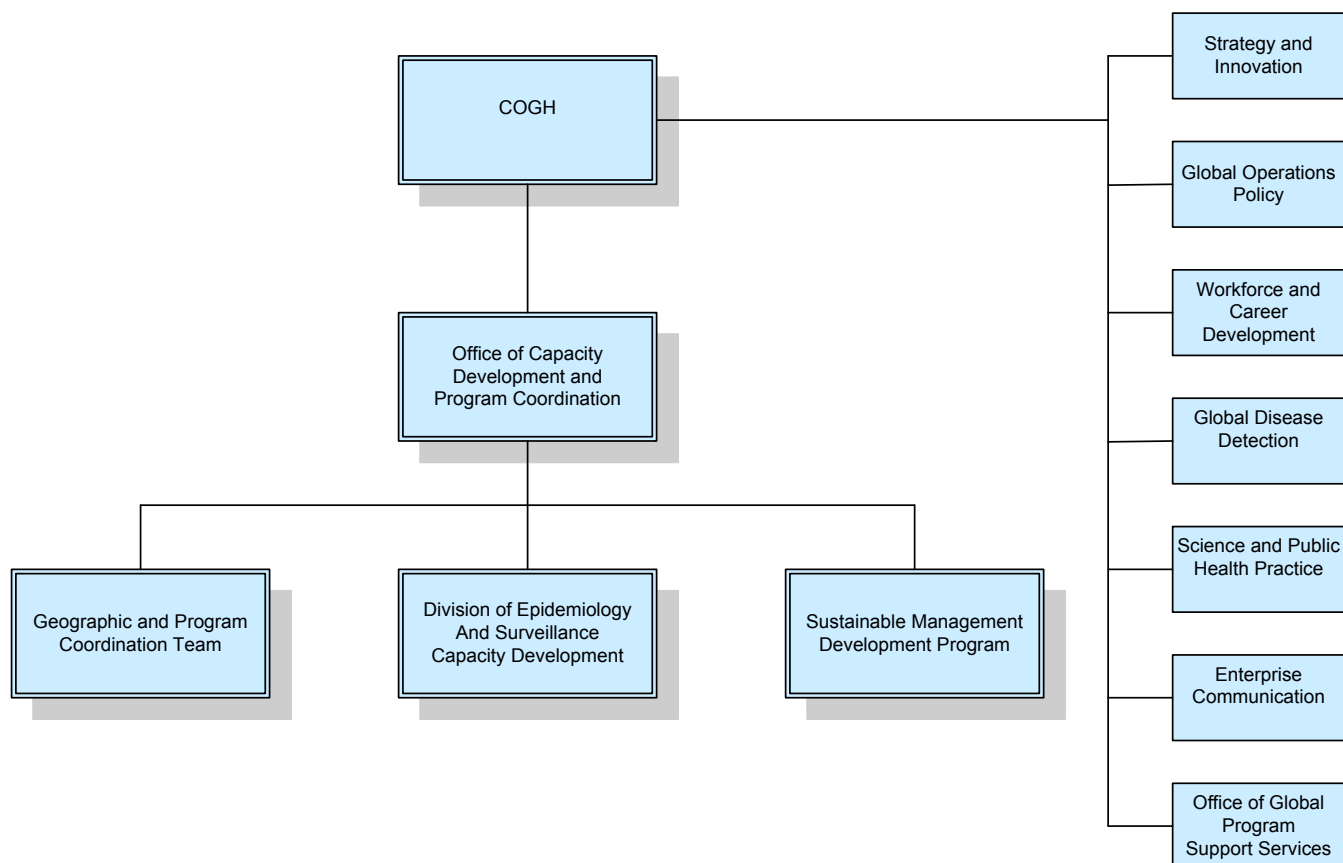


APPENDIX 5 (COGH) TO ANNEX C

1. CONCEPT OF OPERATIONS

Coordinating Office for Global Health (COGH) will foster bilateral and multilateral partnerships, collaboration, and capacity, and prevent and control the influenza pandemic threat internationally. COGH will utilize the following organizations to accomplish its missions.

Diagram 11: Coordinating Office for Global Health



2. CDC INFLUENZA PANDEMIC ACTION REGISTER

Accessing CDC Influenza Pandemic Action Register (Management Tool) On Line Instructions:

Enter COTPER/DEOC portal (eocportal.cdc.gov), scroll down to Pandemic Flu Planning event window, click on Action Register. View data by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register).





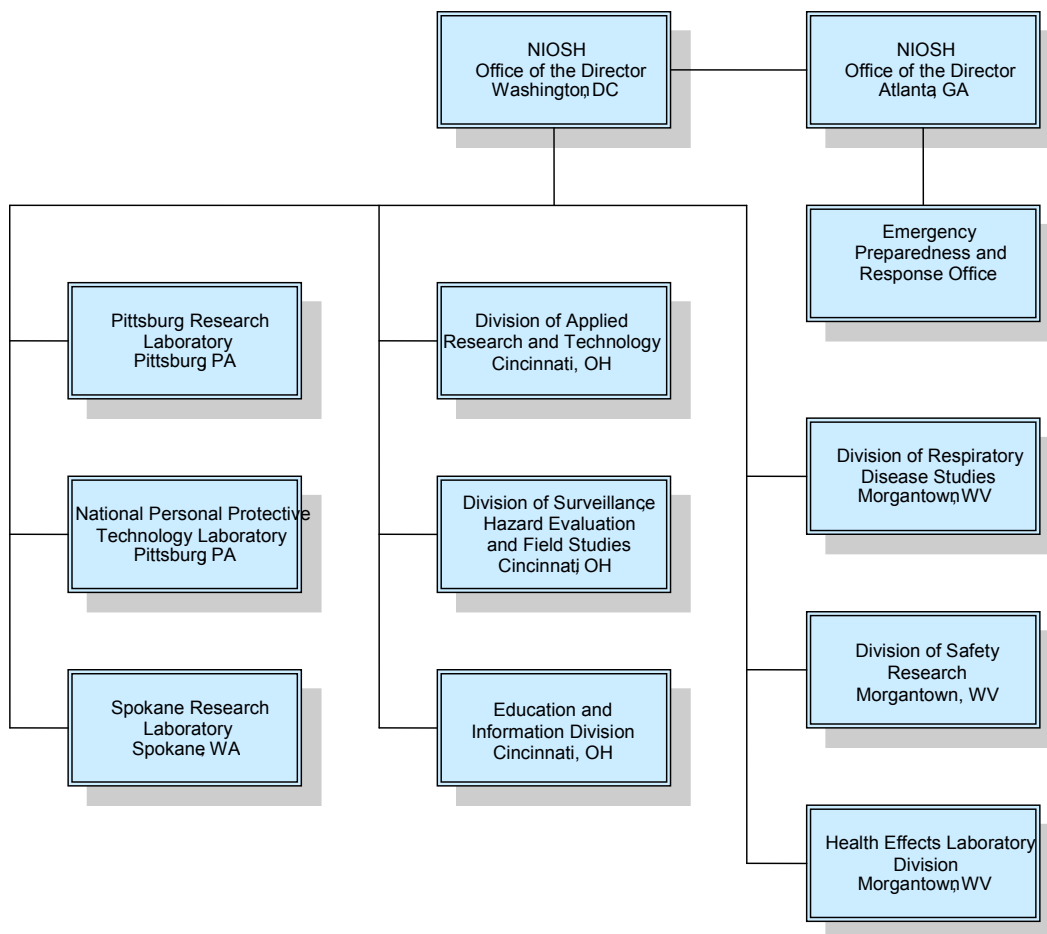
APPENDIX 6 (NIOSH) To ANNEX C

1. CONCEPT OF OPERATIONS

During an influenza pandemic, the National Institute for Occupational Safety and Health (NIOSH) will monitor and assess factors related to workplace transmission of influenza and the effects of the pandemic on the workplace, develop and disseminate safety and health recommendations, and provide technical assistance to assure safe and healthful working conditions (in collaboration with CCID). NIOSH will utilize the following organizations to accomplish its missions:



Diagram 12: National Institute for Occupational Safety and Health



2. CDC INFLUENZA PANDEMIC ACTION REGISTER

Accessing CDC Influenza Pandemic Action Register (Management Tool) On Line Instructions:

Enter COTPER/DEOC portal (<http://eocportal.cdc.gov>), scroll down to Pandemic Flu Planning event window, click on Action Register. View data by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register).



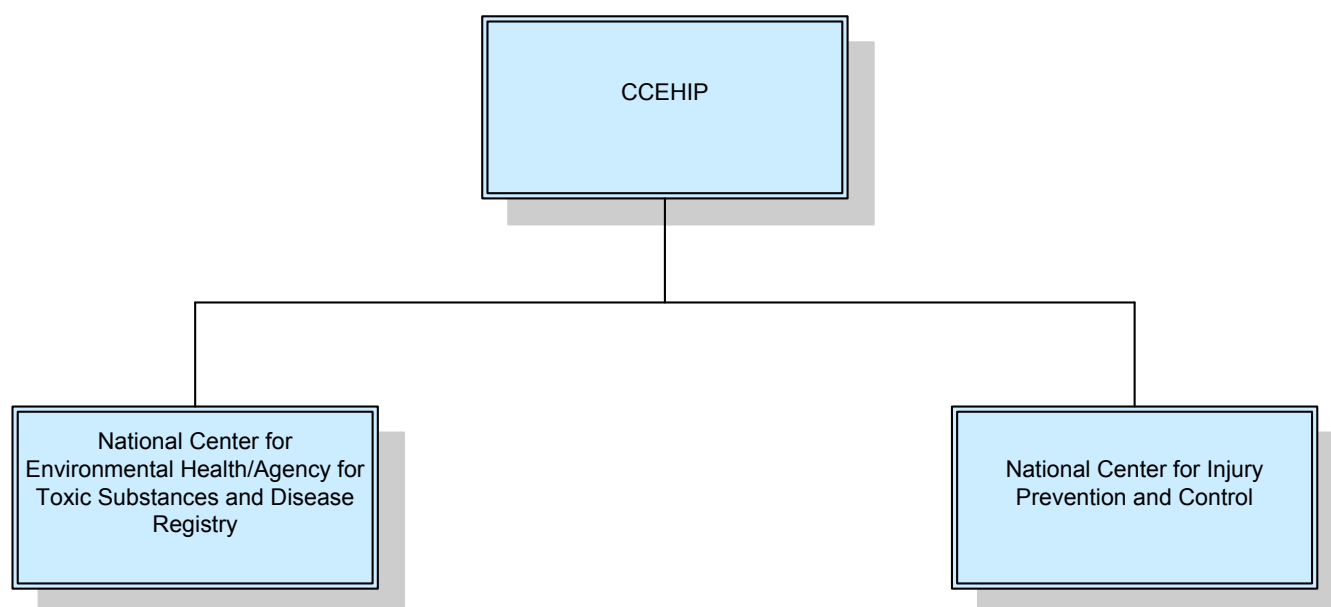


APPENDIX 7 (CCEHIP) TO ANNEX C

1. CONCEPT OF OPERATIONS

During an influenza pandemic, CCEHIP provides technical assistance on health communications pertaining to injury prevention and burdens related to unfolding events, such as intentional and unintentional injury and special trauma care. CCEHIP provides guidance on psychosocial or behavioral health issues as they pertain to violence and unintentional injury due to public health interventions such as community containment. CCEHIP will utilize the following organizations to accomplish its missions:

Diagram 13: Coordinating Center for Environmental Health and Injury Prevention



2. CDC INFLUENZA PANDEMIC ACTION REGISTER

Accessing CDC Influenza Pandemic Action Register (Management Tool) On Line Instructions:

Enter COTPER/DEOC portal (<http://eocportal.cdc.gov>), scroll down to Pandemic Flu Planning event window, click on Action Register. View data by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register).



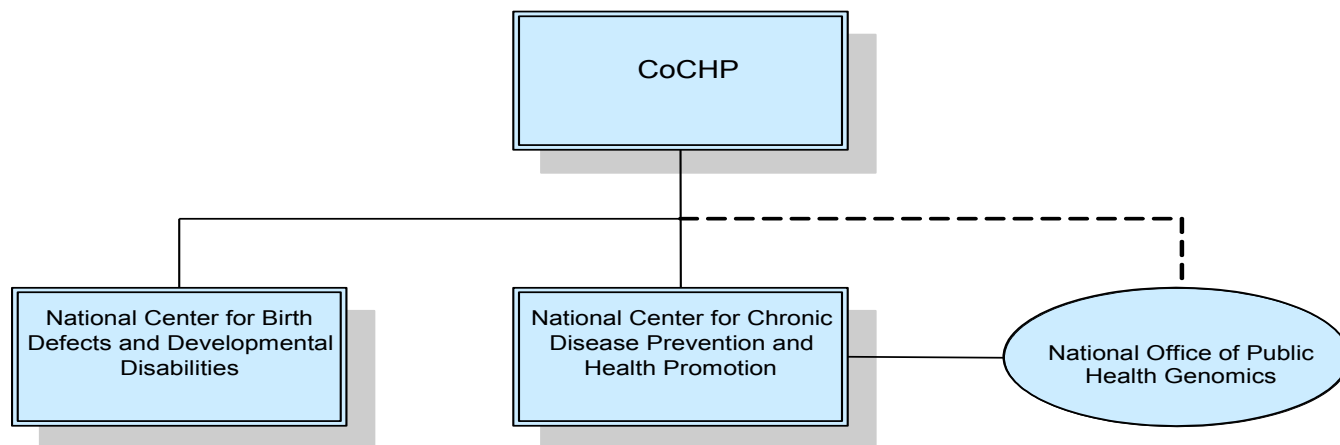


APPENDIX 8 (COCHP) TO ANNEX C

1. CONCEPT OF OPERATIONS

During an influenza pandemic, CoCHP will provide technical expertise in epidemiology, surveillance and communications for populations with physical disabilities and chronic diseases, pregnant and lactating women, reproductive age women, infants, the elderly, and school age children. CoCHP will utilize the following organizations to accomplish its missions:

Diagram 14: Coordinating Center for Health Promotion



2. CDC INFLUENZA PANDEMIC ACTION REGISTER

Accessing CDC Influenza Pandemic Action Register (Management Tool) On Line Instructions:

Enter COTPER/DEOC portal (<http://eocportal.cdc.gov>), scroll down to Pandemic Flu Planning event window, click on Action Register. View data by CC/CO/NIOSH. Refer to the example at Appendix 10 (CDC Influenza Pandemic Action Register).





APPENDIX 9 (PHASED SCENARIOS) TO ANNEX C

There is a range of functions and tasks that CDC will conduct during the six different WHO Phases (refer to Table 1, Base OPLAN). Because the WHO Phases and the USG Stages are broadly defined, all elements of CDC must consider a variety of specific scenarios, such as those below, to identify additional CDC-related activities that would be needed to plan for and respond to an influenza pandemic.

- 1.** Highly pathogenic avian influenza (HPAI)/novel influenza virus subtypes are circulating OCONUS in animal populations with occasional animal to human transmission (WHO Phases 1-2; USG Stage 0).
- 2.** HPAI/novel influenza virus subtypes are identified in animals in CONUS. (WHO Phases 1-2, USG Stage 0).
 - a.** Wild animals.
 - b.** Domestic animals.
 - c.** Commercial animals.
- 3.** Isolated human cases of pandemic influenza virus subtypes are identified in CONUS. (WHO Phase 3-5, USG Stages 0-2).
 - a.** Person who meets existing case definition (e.g., traveler with exposure, lab worker, close contact with known/suspected patient).
 - b.** Person who does not meet the existing case definition.
 - c.** Person with exposure to known/suspected infected animal.
- 4.** Small cluster(s) of human cases of pandemic influenza virus subtypes with limited person-to-person transmission and highly localized spread are identified outside of the US. (WHO Phase 3-5, USG Stages 0-2).
 - a.** OCONUS.
 - b.** CONUS.
- 5.** Small cluster(s) of human cases of pandemic influenza virus subtypes with limited person-to-person transmission and highly localized spread are identified in CONUS. (WHO Phase 3-5, USG Stages 0-2).





- a. Significant person-to-person transmission of pandemic influenza virus subtype is occurring OCONUS. (WHO Phase 5, USG Stage 2).
 - b. Significant person-to-person transmission of pandemic influenza virus subtype is occurring in CONUS. (WHO Phase 6, USG Stage 5)
6. Influenza pandemic cases are occurring OCONUS. (Pandemic Period, WHO Phase 6, USG Stages 3-6).
7. Influenza pandemic cases are occurring in CONUS, but a particular SLTT has not identified a predefined (to be determined) threshold of influenza pandemic cases. (Pandemic Period, WHO Phase 6, USG Stages 3-6).
8. The number of influenza pandemic cases in a particular SLTT has exceeded a pre-defined threshold (Pandemic Period, WHO Phase 6, and USG Stages 3-6).
9. An exponential number of cases of a pandemic influenza are reported. (Pandemic Period, WHO Phase 6, USG Stages 3-6).
 - a. In the U. S., Europe, and Asia paralleling international airline transportation routes.
 - b. Worldwide, including Third World areas with minimal intervention capabilities.





APPENDIX 10 (CDC INFLUENZA PANDEMIC ACTION REGISTER) TO ANNEX C

1. CONCEPT OF OPERATIONS

The Influenza pandemic Task Force has developed a series of reports, drawn from the Project Server database of all assigned and implied actions and tasks. These reports (links listed below) provide additional depth and precision to the Panflu Task Force Reports process. Each report is required at a specified time and contributes significantly to the overall flow of information. These examples are models which may be used in completing originals. Requests for modification or addition to these reports should be directed electronically to The Plans, Training, Information, and Exercise Section (PTIE) of the Division of Emergency Operation (DEO) EOCREPORT@CDC.GOV

2. PANFLU TASK FORCE REPORTS

a. Leadership: 1 Director

- 1) **Status Report:** <http://apd-corporodpro/reportserver?%2fpanflutest%2f20070515+DirectorStatus&rs:Command=Render>
- 2) **Progress:** <http://apd-corporodpro/reportserver?%2fpanflutest%2f20070515+DirectorProgressStatus&rs:Command=Render>
- 3) **Trend Example :** <http://isd-v-nchh-pfl/Shared%20Documents/CompletionTrend.aspx>
- 4) **COCHIS on Target:** <http://isd-v-nchh-pfl/Shared%20Documents/COCHISCompletionTrend.aspx>

b. Leadership: 2 CC-CO-NIOSH

- 1) **Action/Task/Subtask Details:** <http://apd-corporodpro/ReportServer?%2fpanflutest%2fCCCONIOSHDetail&rs:Command=Render>
- 2) **Task Status By Coordinating Center:** <http://apd-corporodpro/reportserver?%2fpanflutest%2fzzzDirectorCenterStatusStatus&rs:Command=Render>
- 3) **CC/CO/NIOSH Report:** <http://apd-corporodpro/reportserver?%2fpanflutest%2fAllCritical&rs:Command=Render>
- 4) **CC/CO/NIOSH Specific Report:** <http://apd-corporodpro/reportserver?%2fpanflutest%2fCritical&rs:Command=Render>





c. Leadership: 3 Division

- 1) **Action/Task/Subtask Details:** <http://apd-corporodpro/reportserver?%2fpanflutest%2ftestReport1&rs:Command=Render>





ANNEX D (INFLUENZA PANDEMIC AUTHORITY AND RESPONSIBILITIES)

1. SITUATION

a. The National Response Plan.

Establishes a comprehensive approach to domestic incident management to prevent, prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. The NRP provides the coordinating framework for provision of support under the Robert T. Stafford Disaster Relief and Emergency Assistance Act. Actions in response to an influenza pandemic are covered under the Biological Incident Annex of the NRP.

b. The National Strategy for Pandemic Influenza

The President has delegated authority for the management of an influenza pandemic to the Secretary of Homeland Security.

c. The National Strategy for Pandemic Influenza Implementation Plan.

Describes and assigns coordinated Federal agency responsibility for more than 300 critical actions to address the influenza pandemic threat.

d. The HHS Pandemic Influenza Plan.

Provides specific missions and broad planning guidance to CDC And the other HHS Operating Divisions (OPDIVs).

e. The CDC Influenza Pandemic OPLAN.

An analysis of the tasks enumerated in all of these documents was conducted in order to develop an implementing operation plan for CDC. The mission contained within the CDC OPLAN is to detect the onset of outbreaks with influenza pandemic potential; assist the containment of such outbreaks; delay the introduction and transmission of pandemic viruses in the United States; assist SLTT health authorities in the management of an influenza pandemic event.

2. MISSION.

CDC will develop disease intelligence information to provide situational awareness of potential influenza pandemic events. As the primary U. S. authority on disease technical information, CDC will provide technical resources for the detection and control of pandemic influenza viruses to the





National Command Authority and all Federal departments. Through a network of Senior Management Officials (SMOs) CDC, in concert with the SHO and IRCT, will coordinate the provision of resources and technical expertise to the SLTT agencies.

3. EXECUTION

- a.** The Influenza Pandemic Coordination Unit (ICU) is located within the Office of the Director, Coordinating Center for Infectious Diseases (CCID) and is charged with facilitating and coordinating planning activities and tasks associated with the CDC Influenza Pandemic OPLAN. Presently, the ICU is a small unit organized in a manner to allow a seamless transition to the IMS once the DEOC has been activated. During the inter-pandemic period, the ICU will have primary responsibility for managing the Action Register and tracking the tasks assigned to CC/CO/NIOSH through to completion. However, ultimate accountability for task accomplishment rests with the specific CC/CO/NIOSH identified as having primary ownership of the task. Progress towards meeting the tasks will be reported to the CDC Director by the ICU Director.
- b.** The CDC Incident Manager will have authority commensurate with the responsibility for management of the pandemic within CDC during WHO Phase 6.
- c.** A critical element of CDC's response lies with the regional SMOs in the field. The SMO as an extension of the CDC Director, will have line authority over all CDC activated and deployed assets operating on behalf of CDC within the SMO's area of operation. SMO duties during an influenza pandemic include:
 - 1)** Coordination with all CDC functional team leaders (e.g., epidemiological, occupational health, environmental health, mental health).
 - 2)** Development of a general incident assessment (situational awareness and provision of status reports).
 - 3)** Coordinate with ESF #8 representatives at the JFO and with response centers within the SLTTs.





- 4) Maintenance of comprehensive knowledge of all CDC resources (personnel and equipment) deployed to and/or responding to the influenza pandemic (locations and missions).

4. SERVICE SUPPORT

SMOs will receive guidance on the distribution of CDC field resources (personnel, pharmaceuticals and non-pharmaceuticals) through both the DEOC and the ESF #8 Incident Response Coordination Team (IRCT) located in the DHS regional Joint Field Office.

5. MANAGEMENT AND COMMUNICATION

The Influenza Pandemic Authority and Responsibilities diagram (Refer to Figure 3): Pan Flu Authority and Responsibilities to Annex D) depicts the complicated but integrated planning and response execution structure in support of an influenza pandemic and incidents requiring a coordinated Federal response using the National Response Plan Emergency Support Function 8 (ESF #8) construct in accordance with the National Incident Management System.

According to the President, and the Secretary of Health and Human Services, state, local, territorial, and tribal public health agencies are on the front lines of the looming pandemic.

On the RIGHT side of the diagram ...Guidance is received through:

- The National Strategy
- The National Strategy Implementation Plan
- The HHS Pandemic Influenza Plan
- The HHS Pandemic Influenza Implementation Plan
- The National Response Plan and the National Incident Management System

An analysis of the tasks enumerated in all of these documents was conducted in order to develop an implementing operation plan for CDC. The Influenza Pandemic Coordination Unit (ICU), located within the Office of the Director, Coordinating Center for Infectious Diseases (CCID), is charged with facilitating and coordinating planning activities and tasks associated with the CDC Influenza Pandemic OPLAN. During the inter-pandemic period, the ICU will have primary responsibility for





managing the Action Register and tracking the tasks assigned to CC/CO/NIOSH through to completion.

The CENTER of the diagram depicts the Federal Government command structure from the President through HHS to CDC, showing adjacent federal agency integration and coordination relationships. International coordination and requests pass through the State Department, through HHS to CDC. The World Health Organization (WHO) is expected to pass information and requests for assistance directly to CDC in addition to coordination through the State Department.

The LEFT side of the diagram depicts how CDC implements the OPLAN using the National Response Plan (NRP) and the National Incident Management System (NIMS) construct to respond to an Influenza Pandemic. The Secretary of Homeland Security is responsible for coordinating Federal resources to prepare for, respond to, and recover from terrorist attacks, major disasters, and other emergencies. He is the Principal Federal Official for domestic incident management. He has designated a Principal Federal Official for Pandemic Influenza who is expected to be located in the National Operations Center (NOC). The Secretary, HHS is responsible for coordinating Public Health and Medical Services (NRP ESF #8) resources in potential or actual incidents requiring Federal coordination. ESF #8 response is coordinated principally by the ASPR through the Secretary's Operations Center (SOC). Using the current ESF #8 construct, HHS provides ESF #8 incident staff and Liaison Officers (LNO) to the National Operations Center (NOC), the National Response Coordination Center (NRCC), Regional Response Coordination Center (RRCC), and also the CDC DEOC.

The DEOC, as a NIMS structured operations center, provides centrally integrated operations, planning, threat analysis, logistics, and administrative/financial support for the CDC Incident Management Structure. The DEOC coordinates all CDC ESF #8 support to an incident.

Upon implementation of the Joint Field Office (JFO), HHS also fields a Senior Health Official (SHO) and an Incident Response Coordination Team (IRCT) to coordinate ESF #8 activities between Federal and State Agencies at the disaster level. The Deputy PFO for PanFlu is located at the JFO, which is managed by a Federal Coordinating Officer (FCO). In the current planning scenarios are potentially five regional JFOs responsible for PanFlu response operations.





A critical element of CDC's response lies with the regional Senior Management Official (SMO). The SMO as an extension of the CDC Director, will have line authority over all CDC activated and deployed assets operating on behalf of CDC within the SMO's area of operation.

SMO duties during an influenza pandemic include:

- 1) Coordination with all CDC functional team leaders (e. g., epidemiological, occupational health, environmental health, mental health).
- 2) Development of a general incident assessment (situational awareness and provision of status reports).
- 3) Coordination of CDC's representation at the DHS Joint Field Office (JFO) and response centers within the SLTTs.
- 4) Maintenance of comprehensive knowledge of all CDC resources (personnel and equipment) deployed to and/or responding to the influenza pandemic (locations and missions). SMOs will receive guidance on the distribution of CDC field resources (personnel, pharmaceuticals and non-pharmaceuticals) through both the DEOC and the ESF #8 IRCT located in the JFO. On-the-ground field resources, and the ESF #8 incident teams, all provide information which contributes to the overall situational awareness of all ESF #8 coordination agencies, command authorities, and the local level to continue to prosecute the threat.

APPENDIX:

1. Commissioned Corps Response Teams

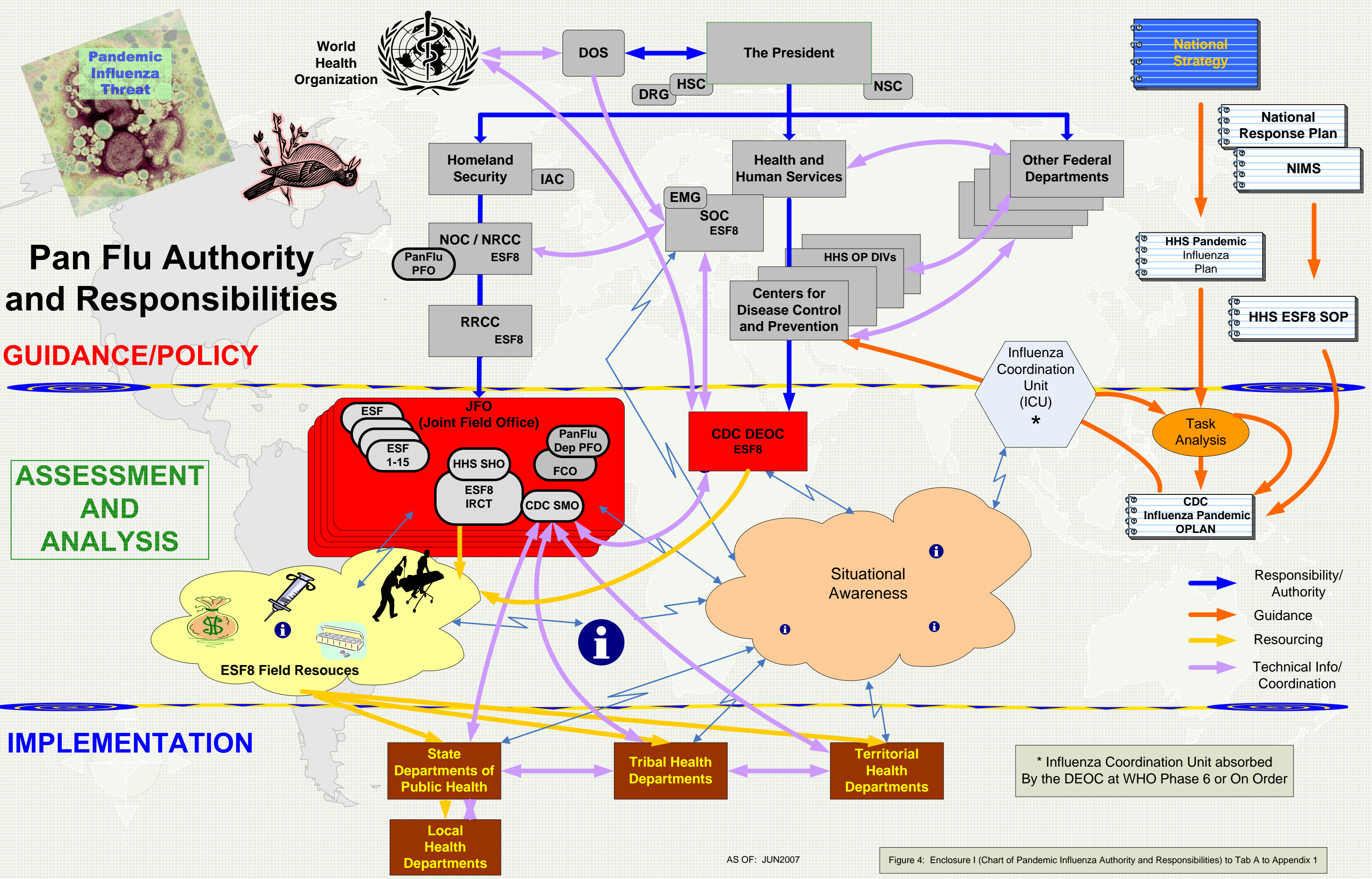


Pan Flu Authority and Responsibilities

GUIDANCE/POLICY

ASSESSMENT AND ANALYSIS

IMPLEMENTATION



* Influenza Coordination Unit absorbed By the DEOC at WHO Phase 6 or On Order



APPENDIX 1 (COMMISSIONED CORPS RESPONSE TEAMS) TO ANNEX D

REFERENCES:

1. U.S. DHHS Commissioned Corps Directive 121.02, SUBJECT: Commissioned Corps Deployments, Effective 23 January 2007.
2. U.S. Public Health Service Concept of Operations Plan (CONOPS) for Applied Public Health Teams, Jul 2006.
3. Office of Force Readiness and Deployment <http://ccrf.hhs.gov/ccrf/>
4. US Public Health Service Commissioned Corps Readiness and Response Program, Commissioned Corps Transformation Implementation Plan, October 2006

1. SITUATION

- a. Routine public health services are likely to be overwhelmed or disrupted in the aftermath of natural or man-made disasters.
- b. USPHS personnel may be deployed within the United States or overseas in the following circumstances:
 - 1) A public health challenge that exceeds the capabilities of local, state or OPDIV.
 - 2) Public health requirements under the National Response Plan, of the Department of State and/or the Agency for International Development, or other declared emergencies.
 - 3) Critical technical public health requirements outside normal agency activity.
 - 4) A request for multinational assistance from a National Authority in which U.S. assets are one component of an international response.
 - 5) A request for multinational assistance coordinated by the WHO at the request of the National Authority.
 - 6) As elements of a Global Outbreak Alert and Response Network team (see Appendix 1 to Annex E).
- c. In the context of an influenza pandemic USPHS personnel may be deployed in response to a public health emergency as declared by the President or the Secretary, HHS.





2. MISSION.

Commissioned Corps Response Teams will provide comprehensive technical support to international, state, regional and local public health authorities and assure that the basic public health needs of the affected community are met during a major disaster or public health emergency.

3. EXECUTION

a. Concept

Office of Force Readiness and Deployment (OFRD), under the direction of the Surgeon General and Secretary, HHS, has formed response teams to manage domestic and global public health emergencies. These teams are configured as follows:

- 1) Rapid Deployment Force (RDF) – Mass Medical Care at Special Needs Shelter and other Situations
- 2) Incident Response Coordination Team (IRCT) – On Site Management and Support Team
- 3) Applied Public Health Team (APHT) – “Health Department in a Box”
- 4) Mental Health Team (MHT) - Provide mental health prevention and treatment consultation and support to impacted populations

The ASPR has operational control (OPCON) of the IRCTs. OFRD generally has OPCON of the other three teams except when deployed for agency-specific missions (e.g. CDC/ATSDR).

b. Assumptions

- 1) CDC is the lead OPDIV for public health missions. The Commissioned Corps team that is directly associated with that mission are the Applied Public Health Teams (APHTs). When ESF #8 is not activated, deployment of APHTs will be managed and under the directional control of the DEOC. When ESF #8 is activated, APHTs will receive technical guidance from the DEOC and will provide technical data and information to the DEOC.
- 2) OFRD will roster the PHS CC component of the deployment teams.
- 3) Deployment teams will be integrated into the overall Incident Management Structure (IMS) of the DHHS.





- 4) Major logistical and administrative support will be provided by the DEOC or the DHHS IMS, as appropriate.

c. Operating Principles

- 1) Deployment Teams may consist of both PHS CC Officers and CDC/ATSDR civil service personnel.
- 2) Teams will be under the operational control (OPCON) of the Director, CDC when ESF #8 is not activated.
- 3) Director, CDC will facilitate staffing of the teams in coordination with HHS/OS and OFRD.
- 4) Once staffing is complete, Director, CDC will be held responsible to train, equip, and deploy teams based on requests from HHS/OS.
- 5) HHS/OS will staff teams from all available PHS assets.
- 6) Commissioned Corps teams may require augmentation from civil servant resources.
- 7) Commissioned Corps officers will be required to maintain readiness in accordance with OSG guidance.
- 8) CC/CO/NIOSH should maintain visibility of assigned Commissioned Corps officers to deployment teams and develop internal rosters to ensure the officers are not considered resources for deployment, unless coordinated with OFRD.

d. Deployment Assets:

1) Rapid Deployment Force (RDF) (105 Personnel)

Capabilities:

- a) Mass care (primary care, mental health, and public health services for the sheltered population)
- b) Point of Distribution (POD) Operation (mass prophylaxis and vaccination)
- c) Medical surge
- d) Isolation and quarantine
- e) Pre-hospital triage and treatment
- f) Community outreach and assessment
- g) Humanitarian assistance





- h) On-site incident management
- i) Medical supply management and distribution
- j) Public health needs assessment and epidemiological investigations
- k) Worker health and safety
- l) Animal health emergency support

2) Incident Response Coordination Team (IRCT) (30 Personnel)

Capabilities:

- a) Represent ESF #8 in the field
- b) Perform liaison functions required of ESF #8
- c) Lead deployed ESF #8 personnel
- d) Operations responsibility for ESF #8
- e) Administration, finance and Logistics
- f) IT/Communications
- g) Planning

3) Applied Public Health Team (APHT) (47 Personnel)

Capabilities:

- a) APHT will be integrated into the Commissioned Corps' response at any given point in time, as required by Federal, state, local, territorial or tribal requests for assistance; or via an international mission request.
- b) APHTs will be composed of experts in public health assessments, environmental health, infrastructure integrity, food safety, vector control, epidemiology, and surveillance.
- c) APHT Structure: The APHTs can be arranged into the following sub-specialty units:
 - (1) Command staff
 - (2) Support
 - (3) Water/waste water
 - (4) Food safety
 - (5) Animal and vector control
 - (6) Disease surveillance





- (7) Occupational safety
- (8) Preventive medicine
- (9) Community health education

4) Mental Health Teams (MHT) (26 Personnel)

Capabilities:

- a) Incident assessment including scope and intensity of event and exposure to trauma,
- b) Collaborating with local officials and professional groups to assess community mental health prevention and treatment needs.
- c) Providing system-level consultation and support to develop behavioral health training programs for impacted populations (e.g., the Mercy Model).
- d) Identifying and referring survivors and responders to needed community services.
- e) Screening and assessment of individuals for a variety of conditions including suicide risk, acute and chronic stress reactions, substance abuse, and mental health disorders.
- f) Utilizing specialized counseling approaches including suicide prevention and intervention with grief counseling.
- g) Time-limited counseling or psychotherapy to individuals with serious mental illness and/or substance abuse disorders until local resources return to basic functioning.
- h) Providing consultation to medical staff on the effects of stress on patient behavior.
- i) Psychological first aid, including crisis intervention to address mental and emotional needs of survivors and responders following a disaster.
- j) Consulting on-site incident commanders in the prevention and management of stress including site conditions and work hours to ensure continued mission readiness of responders.
- k) Providing stress management and counseling services including exit interviews to support responders.
- l) Providing assessment, diagnosis, and treatment of persons requiring more intensive psychological interventions, including psychopharmacology consultation through a psych-pharmacy specialist referral when required.





e. COTPER:

- 1) Conduct pre-deployment processing on a monthly basis, or as required to maintain a primary and backup team for deployment to include coordination with OSEP to schedule “Preparing for Work Overseas” courses on a frequent basis.
- 2) Manage the deployment process.
- 3) Provide a Logistics Support Team (LST).

f. Coordinating Instructions

- 1) CDC must maintain a large pool of trained influenza surveillance and preparedness teams capable and available for deployment.
- 2) OFRD (Office of Force Readiness and Deployment) will maintain team rosters of standing deployment teams. These rosters will be maintained and updated often to ensure they are current and prepared for rapid response. These rosters will be distributed to Senior Management Officials and Emergency Coordinators quarterly.
- 3) Teams will be pre-rostered into PWMS to ensure team deployments are resourced timely.

4. SUPPORT SERVICES

COTPER:

Coordinate with other CDC offices to ensure sufficient deployment stocks are available for deployment. Examples of deployment-required materiel include:

- a. PPE.
- b. Antiviral drugs and other medications as required.
- c. Specimen collection/transport kits.
- d. Field diagnostics kits.
- e. Deployable equipment (laptop, global satellite cell phone, GPS, etc.)
- f. Self use medical kits.

5. MANAGEMENT AND COMMUNICATIONS

Maintain daily (or more often if required) contact with the DEOC.





ANNEX E (INTERNATIONAL AND BORDER INTERVENTIONS)

REFERENCES:

1. Interim Pre-pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States, CDC, (February 2007)
2. Implementation Plan for the National Strategy for Pandemic Influenza, Homeland Security Council, (May 2006)
3. HHS Pandemic Influenza Implementation Plan (August 2006 Draft)
4. WHO Pandemic Influenza Draft Protocol for Rapid Response and Containment (Updated Draft 30 May 2006)
5. WHO Pandemic Influenza Draft Protocol for Rapid Response and Containment (Updated Draft 30 May 2006)
6. WHO Writing Group. Non-pharmaceutical Interventions for Pandemic Influenza, National and Community Measures. *Emerging Infectious Diseases* 12(1), (January 2006), 88-94

1. CONCEPT OF OPERATIONS

From the initial emergence of an influenza pandemic and through subsequent pandemic waves, the public health and healthcare sectors can utilize an assortment of intervention strategies and operational techniques to stop, slow, contain, or limit emergence, importation, spread, and impact of pandemic influenza. Interventions can be classified as case-based, population-based, or personal-based.

- a. Case-based interventions for pandemic influenza focus on direct management of ill persons and their close contacts to prevent new infections and limit chains of transmission. Operational techniques involve recognition, confirmation, isolation and treatment of case-patients plus the identification, quarantine, and antiviral prophylaxis of contacts. Case-based interventions can be utilized especially during the pandemic alert period as part of international or domestic containment efforts to stop (contain) a pandemic from emerging or delaying initial amplification of transmission in a community.





- b.** Population-based interventions include actions directed at susceptible groups or entire communities to delay (mitigate) spread. These include a variety of social distancing techniques as well as mass prophylaxis (used in specialized containment efforts) and mass vaccination.
- c.** Personal-based interventions are behavioral risk-reduction actions that further limit exposure among susceptible persons. These include voluntary self-sheltering, standard infection control practices among healthcare workers, hand hygiene, respiratory etiquette, and disinfection of potentially contaminated surfaces.
- d.** These three classes of intervention strategies and techniques are summarized in Table 9, below:





Table 8: Classes Of Intervention Strategies And Techniques

Intervention Strategy	Intervention Technique
Case-Based Interventions	
Separate ill or infectious persons from others in the general population to restrict interaction with susceptible persons	Case (patient) management—Isolation (pending or following laboratory confirmation). Isolation may occur in the home or health care setting, depending on the severity of an individual's illness and/or the current capacity of the healthcare infrastructure.
Treat symptomatic persons to mitigate disease, suffering, and death, and reduce infectiousness	Case (patient) management—Antiviral treatment
Separate exposed persons (prospective or potential cases) from the general population to stop new chains of transmission from beginning	Contact management—Contact quarantine (mandatory or voluntary) (following contact tracing)
Provide medical prophylaxis to prospective cases to treat sub-clinical infection	Contact management—Antiviral prophylaxis (active)
Population-Based Interventions	
Separate exposed groups from the general population to stop new chains of transmission from beginning	Contact management—Group quarantine (voluntary) (following exposure in a defined group or site)
Reduce the interaction of potentially exposed groups and infectious persons in the general environment to stop new chains of transmission from beginning	Social distancing including: Limitations on location-based gatherings/events (compulsory and voluntary) (e.g., schools, work sites, mass gatherings, public transportation, etc.) Travel restrictions (compulsory and voluntary) to and from affected areas (domestic and international)
Provide medical prophylaxis to potentially exposed groups to reduce susceptibility	Risk group antiviral prophylaxis (passive) (e.g., nursing home residents, etc.)
Provide mass medical prophylaxis to potentially exposed groups to treat sub-clinical infection	Risk zone antiviral prophylaxis (active/targeted as in a containment event)
Actively reduce susceptibility in the general population	Immunization with pandemic vaccine
Personal-Based Interventions	
Reduce the interaction of susceptible and infectious persons in the general environment to stop new chains of transmission from beginning	Self-sheltering (voluntary)
Use personal physical barriers that reduce the risk of infection in frequently exposed individuals	Personal protective equipment (PPE) and infection control in EMS and healthcare settings
Preventively remove infectious organisms acquired by inadvertent contact with infectious persons or contaminated objects	Hand hygiene
Limit respiratory spread of infectious organisms	Respiratory etiquette
Disinfect or dispose of objects contaminated by infectious persons	Environmental disinfection in EMS, healthcare, and other settings

2. INTERVENTION STRATEGIES – A LAYERED RESPONSE

The USG supports a layered strategy of response to an influenza pandemic.

- a. When sustained human-to-human transmission of pandemic influenza begins (presumably outside of the United States) the USG will leverage available resources/interventions and collaborate with international partners to contain the infection at its source. CDC will participate in rapid containment events, supplying technical expertise and other support, as part of an international team(s).





- b. The USG will also mobilize resources at borders and ports of entry (POE) to limit the introduction of persons infected with pandemic influenza, or animals with HPAI, into the United States and limit exportation (via exit screening) from infectious U. S. travelers to infected areas. CDC's role in this strategy will primarily focus on providing relevant guidelines and materials for the education of travelers and the recognition and management of ill and exposed travelers entering or leaving the United States at ports of entry.
- c. Should containment abroad and efforts to prevent importation fail, and an introduction and spread of pandemic influenza into the United States appears inevitable, U. S. communities will be required to mobilize resources and implement interventions directed at limiting or otherwise delaying the spread of disease throughout the country (mitigation). This could minimize suffering and death, reducing economic and social effects of an influenza pandemic. CDC will provide containment and mitigation support to community efforts via ESF #8, with technical assistance, financial aid (as available), materials, and formal guidance.

APPENDIXES

1. CDC International Deployment Teams
2. International Response Operations
3. Border Interventions





APPENDIX 1 (CDC INTERNATIONAL DEPLOYMENT TEAMS) TO ANNEX E

REFERENCE:

WHO Pandemic Influenza Draft Protocol for Rapid Response and Containment,
Updated draft, 17 March 2006.

1. SITUATION

Throughout its history CDC has sought to leverage its knowledge, tools, physical assets and personnel throughout the world in response to health crisis. CDC personnel have been sought by other nations to assist with sentinel health events. In a health emergency, CDC may enter into bilateral or multinational (WHO-coordinated) assistance compacts

WHO has established a requirement for a global system that can rapidly identify and contain public health emergencies and reduce unneeded panic and disruption of trade, travel, and society in general. The revised International Health Regulations, (IHR 2005) provide a global framework to address these needs through a collective approach to the prevention, detection, and timely response to any public health emergency of international concern.

The core functions delineated by WHO to respond to an influenza pandemic are:

- a.** Support member states for the implementation of national capacities for epidemic preparedness and response in the context of the IHR (2005), including laboratory capacities and early warning alert and response systems.
- b.** Support national and international training programs for epidemic preparedness and response.
- c.** Coordinate and support member states for pandemic and seasonal influenza preparedness and response.
- d.** Develop standardized approaches for readiness and response to major epidemic-prone diseases (e.g., meningitis, yellow fever, plague).
- e.** Strengthen biosafety, biosecurity, and readiness for outbreaks of dangerous and emerging pathogens (e.g., pandemic influenza, SARS, viral hemorrhagic fevers).





- f. Maintain and further develop a global operational platform to support outbreak response and support regional offices in implementation at the regional level. Implemented as the Global Outbreak Alert and Response Network (GOARN).

2. MISSION.

CDC will use both personnel and physical assets to support bilateral or multinational efforts to assess/investigate/contain a potential influenza pandemic event anywhere in the world. Refer to Figure 4: WHO-Coordinated Response.

3. EXECUTION

a. Concept.

CDC as a collaborating member institution of GOARN, deploys selected personnel OCONUS at the request of WHO when a Member State requests assistance from WHO. Additionally, CDC may respond to a bilateral request from an affected country to the U.S. for assistance. Finally, CDC may receive requests from both WHO and a country. Some CDC staff could join the GOARN team, while for others, CDC would make decisions about the number and type of staff to deploy. Every effort possible would be made to coordinate field operations with the GOARN staff. Within this appendix the procedures outlined are generally applicable for both a GOARN and a bilateral deployment.

b. Terms of Reference (ToR)

The number and skills sets of requested staff are mission-specific and ToR are specified in the request for assistance from WHO. The following ToR are examples of those used previously for influenza outbreaks.

1) Epidemiologist

- a) Provide epidemiological assistance with assessing the spread of disease.
- b) Provide assistance developing tools, implementing investigations, and analyzing and interpreting data to understand the current epidemiological situation.
- c) Provide assistance identifying risk factors for infection.





- d) Provide assistance with establishing effective control measures.
- e) Provide assistance with data management and analysis.
- f) Provide assistance in defining the disease case definition.

2) Virologist

- a) Provide assistance with real-time PCR laboratory diagnosis of avian influenza viruses, in particular with understanding variation in genetic sequences and the impact on diagnosis.
- b) Provide assistance with evaluation of evolutionary patterns in avian influenza viruses and its effect on human infection and virulence.

3) Clinical Management Expert

Provide assistance to clinicians in the treatment of hospitalized suspected and confirmed diseased patients (Previous experience in treating severe respiratory infections in ICU-type setting required, ideally previous experience with avian influenza infection).

4) Infection Control Specialist

- a) Provide technical assistance to national/local health authorities in assessing the level of hospital infection control in facilities designated for caring for suspected or confirmed influenza patients.
- b) Assist in strengthening infection control practices in local health delivery infrastructure.
- c) Assist in training of health care personnel for safe clinical management and infection control.
- d) Advise on effective and feasible infection control practices and isolation precautions in health care facilities including isolation wards.
- e) Provide observation and evaluation to strengthen the level of implementation

c. CC/CO/NIOSH

- 1) Prepare selected personnel for international deployment. Overseas work necessitates pre-planning in that many of the course requirements to deploy are only available at certain times during the year.
- 2) If the IMS is not activated, manage the selection of team members and manage the deployment process, in conjunction with COTPER.





- 3) If the IMS is activated, Support the IMS in the selection of team members for deployment.
For detailed information, refer to http://eocportal/deployment_welcome_1.asp web site.

d. COTPER:

- 1) Conduct pre-deployment processing on a monthly basis, or as required to maintain a roster of qualified personnel for deployment to include coordination with OSEP to schedule “Preparing for Work Overseas” (PFWO) courses on a frequent basis. Processing includes both USG and UN requirements to prepare staff to participate in a GOARN team.
- 2) Manage the deployment process.
- 3) Provide Logistics Support Specialists.

e. Coordinating Instructions

- 1) CDC must maintain a large pool of trained influenza surveillance and preparedness personnel capable and available for deployment.
- 2) A pool of at least 100 personnel will be available for rapid international influenza response deployment. This pool will include the following specialties and skill sets in the numbers indicated:
 - a) 15 mid-to-senior level epidemiologists
 - b) 15 public health advisors
 - c) 20 EIS officers
 - d) 10 laboratorians
 - e) 10 medical officers
 - f) 5 communications/media specialists
 - g) 5 communications/health educator specialists
 - h) 5 occupational health experts
 - i) 5 environmental health experts
 - j) 5 logisticians
 - k) 5 informatics specialists
- 3) All of these team members must complete influenza training provided by the Influenza Division, CCID.





- 4) All members of the pool must have valid official passports (red), government travel card and have completed the PFWO course.
- 5) OFRD (Office of Force Readiness and Deployment) will maintain team rosters of standing deployment teams. These rosters will be maintained and updated often to ensure they are current and prepared for rapid response. These rosters will be distributed to Senior Management Officials and Emergency Coordinators quarterly.

4. SUPPORT SERVICES

COTPER:

Coordinate with other CDC offices to ensure sufficient deployment stocks are available. Examples of materiel required to support deployments include:

- a. PPE.
- b. Antiviral drugs and other medications as required.
- c. Specimen collection/transport kits.
- d. Field diagnostics kits.
- e. Deployable equipment (laptop, global satellite cell phone, GPS, etc.)
- f. Self use medical kits.

5. MANAGEMENT AND COMMUNICATIONS

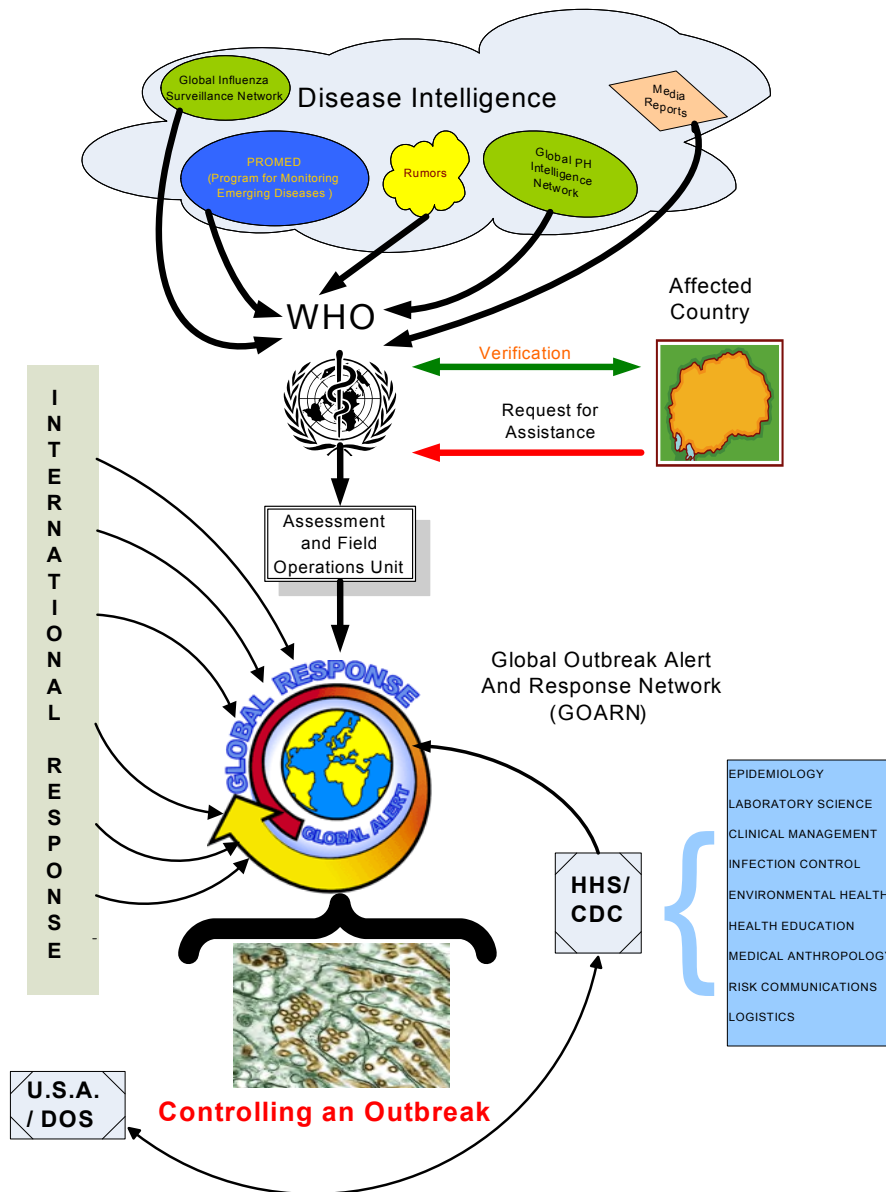
Refer to Annex K (Information Management).



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Figure 5: WHO-Coordinated Response



(Source: CDC)



APPENDIX 2 (INTERNATIONAL RESPONSE OPERATIONS) TO ANNEX E

1. SITUATION.

- a. The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence)
- b. International and Border Intervention. Refer to base Annex E.

2. MISSION.

Within the framework of the WHO rapid response and containment strategy, CDC will employ resources to stop, or at least slow, the spread of pandemic influenza at the source of its emergence in order to minimize global morbidity and mortality, through preparedness, rapid response, and containment.

3. EXECUTION.

a. Concept of Operations

- 1) In 2005, two research groups published studies based on the mathematical modeling of transmission patterns that might be seen near the start of a pandemic. (Ferguson, NM et.al., "Strategies for Containing an Emerging Influenza Pandemic in Southeast Asia." *Nature* 437, 209-214 (8 September 2005). Longini, IM et.al., "Containing Pandemic Influenza at the Source," *Science* (3 August 2005)). These studies suggested that an initial outbreak caused by an emerging pandemic virus might be contained (quenched) provided several demanding conditions were met within a very short timeframe. In these studies, mass administration of antiviral drugs within 21 days following the timely detection of the first case representing improved human-to-human transmission of the virus within the outbreak zone was the cornerstone of the containment strategy, supported by additional non-pharmaceutical measures, such as area quarantine and social distancing. The immediate implementation of standard measures (case and personal-based interventions) when cases are first recognized gives the strategy a greater chance of success. The studies further concluded that, should the containment strategy fail to prevent the emergence of a fully transmissible pandemic virus, it could nonetheless delay international spread.





- 2) Any attempt to contain an emerging pandemic virus at its source will be a demanding and resource-intensive operation. Supplies of antiviral drugs available for use to support such an operation are finite, and must therefore be used judiciously. The decision to initiate activities aimed at rapid containment should be triggered by compelling evidence drawn from a combination of clinical, epidemiological, and laboratory findings that show a more efficient human to human transmission. Feasibility of rapid containment will depend further on the number of contacts of the initial cases and the ability of government authorities to ensure basic infrastructure and essential services to the affected population as well as the political will to implement control measures. Such services include shelter, water, sanitation, food, security, and communications with the outside world.

b. Coordinating Instructions.

1) CDC Deployment with International Field Teams.

(Refer to Appendix 1 (CDC International Deployment Teams) to Annex E)

- a) CDC staff will be called upon to participate in rapid response and containment efforts. International field teams with CDC participants will be drawn from institutions in the WHO Global Outbreak Alert and Response Network (GOARN) and deployed rapidly (within hours or days) under WHO authority following receipt of a request from the affected country. The following issues should be considered:
 - (1) WHO Teams may be deployed before a formal decision to undertake a containment event is made in order to assist in the risk assessment and verification of the pandemic alert. Expertise in laboratory diagnostics, epidemiology, clinical management, infection control, veterinary medicine, medical anthropology, social mobilization, logistics, media communications, and data management will be required. Teams must be ready for travel with all necessary documents and clearances, and equipped with supplies required for the initial investigation and response.
 - (2) Depending on the situation within the affected country, such supplies may include kits for the collection and transportation of specimens, antiviral drugs and other





medical supplies, PPE, and additional supplies of information, educational and communication (IEC) materials for creating awareness in the general public.

- (3) The WHO attempts to ensure that field teams are in place within 48 hours following receipt of the request.
 - (4) National authorities will need to facilitate the speedy arrival of teams through rapid approval of visa applications and customs clearances.
- b) The WHO field team will assist local and national authorities in their investigation and assessment of the disease event and in the gathering of critical information required for situational awareness and the operational response. Examples of information useful in such an assessment include the identification and characterization of chains of human-to-human transmission and of situations that could potentially lead to large numbers of additional cases. Such information will be used when deciding whether the launching of a rapid containment operation is both justified and feasible.

2) A Two-Step International Containment Response.

As part of an international response containment effort, a rapid containment strategy is implemented in two steps: The immediate implementation of standard measures aimed at reducing further transmission (standard measures include isolation of case-patients, active case finding, and contact tracing. Antiviral drugs are administered, in a targeted way, to persons identified during these activities); and implementation of exceptional measures, including wider administration of antiviral prophylaxis, quarantine, and (possibly) the introduction of social distancing measures.

a) Step One: Standard Measures to Reduce Transmission

Activities during this step are based on the assumption that an emerging pandemic virus will not immediately cause the explosive increase in the number of cases seen during a full-fledged pandemic. The interventions at this phase aim to reduce opportunities for further transmission to occur and thus, ideally, prevent the virus from becoming well adapted to humans. Assuming that the number of new cases is still manageable, activities should concentrate on:





(1) Intensified surveillance and the real-time reporting of data.

While not an intervention, the surveillance process within any disease control effort is critical to its success. Once the reported signal is confirmed to be an influenza alert requiring immediate intervention, surveillance activities must be intensified immediately within the initial outbreak zone. The surrounding area, and the geographically “at risk” areas, should also intensify their surveillance and remain on alert for possible introduction of the virus. Within the outbreak zone, enhanced detection and reporting of individual cases and clusters of human-to-human transmission can be achieved through institution of active surveillance to identify all potential cases. This is essential to:

- (a) Manage the outbreak and monitor its evolution.
- (b) Evaluate the success of containment measures and the potential need to modify the strategy.

(2) Investigation and laboratory confirmation of cases.

To support surveillance of cases in the outbreak zone and elsewhere, case definitions will include clinical, epidemiological, and laboratory criteria.

(3) Appropriate management of cases in a safe environment.

All cases identified during this activity should be referred for appropriate case management. Attempts should be made to investigate as many cases as possible using a standardized case investigation form. Epidemiologists should also gather information about recent travel histories that may have placed other areas or countries at risk, thus signaling the need for intensified surveillance elsewhere.

- (a) In the initial phase, when a manageable number of cases are assumed, clinical cases should be hospitalized and managed in single rooms if possible to maintain strict infection control.
- (b) Once laboratory confirmation of infection is available, and the number of cases exceeds the available number of single rooms, patients may be cohorted and managed in group isolation rooms.





- (c) Depending on local circumstances and feasibility, group isolation rooms could be adapted to have negative pressure facilities.
 - (d) When the number of cases exceeds the capacity of existing health care facilities, ill persons should be isolated in other designated areas or individual homes, depending on the severity of their illness.
 - (e) National governments should identify potential isolation facilities as part of their preparedness planning during discussion with WHO.
 - (f) Patients should be transported to these facilities by trained staff wearing appropriate PPE and using designated vehicles.
 - (g) To minimize the risk of nosocomial transmission, persons showing signs of mild, moderate or severe respiratory illness must be assessed in premises separated from those where confirmed cases are being managed.
 - (h) Options for doing so include the establishment of fever clinics, home visits by medical staff, drive-through consultation services, and other methods of triage and diagnosis that limit opportunities for exposure.
- (4) **Implementation of infection control measures within the health care setting.** Infection control measures should be adhered to strictly. Recently, WHO issued detailed infection control guidelines for avian influenza (February 2006) including information specific to H5N1 infection. CDC infection control guidance for influenza is based on current knowledge of routes of influenza transmission, pathogenesis, and the effects of influenza control measures used during past pandemics and inter-pandemic periods. Infection control precautions primarily involve the application of standard and droplet precautions during patient care in health care settings (e.g., hospitals, nursing homes, outpatient offices, emergency transport vehicles). These practices also apply to health care personnel going into the homes of patients. It is also prudent to recognize that aerosol-generating procedures increase the potential for dissemination of small-particle respiratory





aerosols (droplet nuclei) in the immediate vicinity of an AI patient and to plan for the use of NIOSH-certified N95-type respirators.

(5) Contact tracing, voluntary home quarantine, and monitoring.

- (a) During investigation and response, contact tracing must be implemented to include the identification of extended social networks and the travel histories of all cases and contacts within the preceding 14 days. Contacts of cases should be traced and directed to adopt voluntary home quarantine for at least seven days after the last contact with a person under investigation. Such patients should be contacted daily by a public health team member for evidence of respiratory illness for at least seven days after last contact. If the number of contacts requiring investigation is large, follow up should be prioritized based on:
 - i. Heightened probability of infection, such as contact with a laboratory-confirmed case.
 - ii. Duration and closeness of this contact.
 - iii. A high-risk exposure, such as unprotected patient care.
 - iv. Exposure in settings that could accelerate spread to large numbers of contacts, such as when a confirmed case worked in a school or attended a large gathering.
- (b) Contacts of cases and the community at large should:
 - i. Be familiar with the risks factors of exposure and the signs, symptoms, and risks associated with the illness. The public should be informed of the most common symptoms which are fever and/or cough.
 - ii. Receive instructions on how to self-monitor for post exposure fever, which should be performed for at least seven days following the last contact with a possible case of influenza. People should immediately report the onset of fever and other symptoms to health authorities and remain in voluntary home quarantine during self monitoring.





- iii. Be visited or telephoned daily by a member of the public health team to ascertain their clinical status. In remote and inaccessible areas, community focal points could be identified, trained, and assisted to monitor contacts, report on clinical status, and appropriately refer those with symptoms. Prompt investigation and treatment must be provided when symptoms are reported. Investigations can be undertaken at home, locally at an appropriate health care facility, or in a designated field hospital.

(6) Use of antiviral drugs for the treatment of cases and targeted contact prophylaxis.

In the containment zone, antiviral drugs should be administered to cases of moderate-to-severe respiratory illness to reduce morbidity and mortality, and to their contacts to reduce further spread. Priority access to antiviral drugs and other medical interventions is expected to work as an incentive that increases the willingness of patients and their contacts to comply with recommended public health measures under what are likely to be stressful and demanding conditions. Local and national authorities, with support from WHO, will define jointly (within the outbreak zone) the households, schools, workplaces, health facilities, or other settings where the delivery of antiviral drugs, PPE, and other medical supplies should be targeted. Should evidence of spread beyond the initial containment zone emerge, the containment areas designated for antiviral prophylaxis should be redefined. This decision will be made in collaboration with local and national authorities and WHO.





b) Step Two: Exceptional Measures, Including Use of the WHO International Emergency Antiviral Stockpile

(1) Group Quarantine.

Experience during the 2003 SARS outbreaks suggests that quarantine of selected high-risk groups, applied on a voluntary basis, may be as effective as enforced quarantine. The use of voluntary group quarantine is also consistent with modeling studies recommending the application of quarantine and other community-based measures as part of a containment strategy. However, for voluntary quarantine to succeed, the public will need to be informed and sensitized on benefits. National, sub-national, and local governments should be prepared to enforce, legally and operationally, individual and community-based containment measures if warranted. This preparedness should include: 1) Examination of the ethical dimensions of enforced quarantine or compliance with other recommended measures; 2) An assessment of the feasibility and potential risks to the sensitivity of surveillance by implementing involuntary containment measures; and, 3) Wherever possible, the principle of proportionality should be used, whereby the least restrictive measures are applied first. This can be followed by a graded application of more restrictive measures when evidence indicates their necessity.

- (a) Local authorities could apply group quarantine in the following situations:
 - i. Exposure has occurred in a defined group of persons, for example in a household setting, at the workplace or school, or at a well-defined and circumscribed public gathering.
 - ii. Exposure has occurred in a defined site or building such as a hospital or an apartment building.
- (b) Quarantine may involve confinement at home or in a designed facility with appropriate equipment. It may require that persons in home quarantine be provided with food, access to communications, psychosocial





support, and supplies of their usual medications, especially for chronic conditions.

(2) Social Distancing.

Modeling studies have indicated that certain social distancing measures might increase the likelihood of successful containment. Such population-based measures aim to increase the social distance between people in an outbreak zone and thus reduce opportunities for transmission to occur. Like contact or group quarantine, these measures are socially disruptive and some may cause considerable distress or discomfort in the affected population. Moreover, their actual impact on transmission patterns has not been documented fully in scientific studies. They are, nonetheless, included here as an element of national pandemic preparedness plans. These may include:

- (a) The closing of schools and workplaces.
- (b) Cancellation of mass gatherings and public transportation.
- (c) International and domestic travel restrictions.

(3) Mass Antiviral Prophylaxis.

- (a) Mass prophylaxis of the affected population within a radius of 5–10 kilometers (approximately 3–6 miles) from each detected case may be undertaken.
- (b) Targeted administrative areas should cover the at risk population (10,000–50,000).
- (c) Each individual will be given a single prophylactic course of oseltamivir for 10 days. In the event that more cases arise among the targeted population, a second round of prophylaxis is administered. Mass antiviral prophylaxis should cease automatically ten days after the date of symptom onset in the last reported case.





(4) Antiviral drugs: Informed and Voluntary Consent.

The mass administration of antiviral drugs as part of a containment strategy raises certain ethical questions about informed consent during a mass intervention.

National governments need to decide how to provide information about contraindications to the target community. More specifically, antiviral drugs have not been approved for use in pregnancy or in infants younger than one year of age, except in circumstances where the foreseeable benefits outweigh the risks. Such use should be undertaken only after adequate counseling and informed consent of the case or parents of the case.

(5) Reporting of Adverse Events.

Adverse events should be monitored via surveys (e.g., telephone) or directly reported via hotlines. Where such communication structures are lacking, adverse event reporting should be conducted during visits by mobile medical or public health teams, other surveillance networks, or by food and social welfare distribution networks. Adverse event reporting will target such high-risk groups as pregnant women, children, and persons with underlying medical conditions. All people reporting adverse events should be given advice on management of the event. National authorities should examine their responsibility for liability in their respective public health and legal systems should severe adverse events occur.





APPENDIX 3 (BORDER INTERVENTIONS) TO ANNEX E

1. SITUATION.

- a. The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence)
- b. International and Border Intervention. Refer to base Annex E.

2. MISSION.

Delay the entry of novel influenza viruses into the United States.

3. EXECUTION.

a. Concept of Operations.

- 1) Implementation of appropriate interventional strategies at our Nation's 317 ports of entry (POE) and vast transportation network are critical elements in our preparation for and response to a potential influenza pandemic. Efforts to delay the entry of pandemic influenza into the United States (during WHO Phases 4-5) will require careful planning and preparation. Depending on the length of delay, it can provide valuable time to implement pandemic preparedness measures, and may allow the administration of pre-pandemic vaccine, assessment of disease epidemiology, and mobilization of resources for screening and diagnosis.
- 2) Response activities at ports of entry would involve:
 - a) Investigating reports of ill travelers with influenza-like illness to identify and evaluate individuals with a high likelihood of being infected with novel influenza virus.
 - b) Cargo inspections at POE to identify and destroy potentially infected animals or animal products.
- 3) Prior to the occurrence of cases in the United States, international travelers infected with pandemic influenza may simultaneously arrive at multiple ports of entry. However, some POE are more likely to be the site of importation and will require staff augmentation. If the decision is made to screen every arriving and/or exiting international traveler when pandemic influenza is circulating globally, but is not present in the United States, the current number of





U. S. Quarantine Station staff will be inadequate to perform this task. Local and state health department staff should be considered as a resource for the personnel surge capacity needed.

b. Coordinating Instructions.

1) Interventions for Travelers.

- a) The United States could deny entry of travelers, or place conditions on the return of travelers from countries with outbreaks and other countries that have not instituted acceptable pre-departure screening, prohibit entry of travelers from the affected area, or continue to accept travelers from countries with outbreaks under appropriate conditions. Additional options would be considered for U. S. citizens planning to return home from affected areas, such as a voluntary quarantine to monitor for illness through one incubation period prior to departure. This could reduce risk of transmission for the United States, and help identify persons in need of medical care.
- b) The policy of layered screening measures would apply to all U.S. -bound travelers from affected areas, but the characteristics of the outbreak, including the rapidity of spread, may make it necessary to implement this screening at all international airports from which U. S.-bound passengers originate. In addition, development of rapid diagnostic tests can dramatically change our ability to screen effectively. Travel-related interventions can be classified as pre-departure measures, en route measures, and arrival measures.

2) Pre-Departure Measures:

Effective host country health screening of all individuals prior to departure may reduce the risk of travelers exposing fellow travelers, aircraft and vessel crews, and others to pandemic influenza. This would include:

- a) The need to develop pre-departure measures and identify the necessary staffing resources.
- b) Screening for signs of illness (e.g., temperature scanning) and for risk factors (e.g., contacts, travel history).
- c) Restricting movement of potentially exposed individuals for one incubation period prior to international travel.





3) En Route Measures:

Given the short incubation period of influenza, and the length of some international flights, one can assume that some travelers with influenza will develop their first symptoms during their journey. When combined with pre-departure exit screening, this strategy would detect those who developed signs of illness while en route. Procedures would include:

- a) Training of flight and vessel crews to detect and manage ill travelers.
- b) Moving ill persons away from other travelers and, if possible, placing a surgical mask on the ill person.
- c) Emphasizing the importance of hygiene measures such as hand hygiene.
- d) If a mask is not available, covering coughs and sneezes with a tissue or cloth, and proper disposal of these items.
- e) Reporting illness or death of traveler(s) by the ship or aircraft commander.

2) Arrival Measures: ((Needs number correction))

Arrival screening may serve as an important additional layer of containment if adequacy and effectiveness of previous containment measures cannot be ensured, and may help identify individuals who became ill during travel. Arrival screening can be imposed as a precautionary measure. Arrival measures include:

- a) Isolating and diagnostic testing (especially with a rapid diagnostic test, when available) of travelers with influenza-like illness.
- b) Quarantining potentially exposed travelers until definitive testing is complete or antiviral prophylaxis is given.
- c) Educating travelers on pandemic influenza.
- d) It must be recognized that arrival screening will place additional demands on CDC Quarantine Station personnel and Customs and Border Protection officers and agents, especially if a decision is made to funnel inbound international flights to a subset of U. S. airports (potentially 96% of all inbound international flights arrive at 30 U. S. airports).





ANNEX F (COMMUNITY INTERVENTION)

REFERENCE:

1. Implementation Plan for the National Strategy for Pandemic Influenza, Homeland Security Council, (May 2006)
2. HHS Pandemic Influenza Implementation Plan (August 2006 Draft)
3. WHO Writing Group. Non-pharmaceutical Interventions for Pandemic Influenza, National and Community Measures. *Emerging Infectious Diseases* 12(1), (January 2006), 88-94
4. Centers for Disease Control and Prevention. Interim Pre-Pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States – Early, Targeted, Layered Use of Nonpharmaceutical Interventions, February 2007.

1. SITUATION

- a. The “center of gravity” of the pandemic response will be in local communities. Preparedness at the State/Local/Territorial/Tribal (SLTT) levels is critical to the country’s ability to respond to and recover from an influenza pandemic. For influenza pandemic preparedness to be effective, it must be a coordinated, multifaceted effort engaging both traditional public health and health care partners and other public, private, and non-governmental organization (NGO) sector partners. All case, population, and personal based intervention strategies are applicable in U. S. communities.
- b. The optimal strategies for prevention and control of pandemic influenza are the same as for seasonal influenza: vaccination, early detection and treatment with antiviral medications, and the use of infection control measures to prevent transmission during patient care. However, when a pandemic emerges, a vaccine may not be available, and the supply of antiviral drugs may be limited. Therefore, nonpharmaceutical public health strategies and techniques (augmented by selective use of antiviral drugs) will be essential to minimize infection, delay spread, and reduce the impact of pandemic disease, especially during the initial wave (s).
- c. Nonpharmaceutical approaches include home isolation of ill persons, home and facility quarantine of those exposed, community social distancing measures (e.g., closure of public





places, closure of specific worksites, stoppage of public transportation, school closures), personal hygiene measures, and infection control in healthcare and other venues. Local health officials should be prepared to implement, monitor, and evaluate these non-pharmaceutical techniques as dictated by disease dynamics in their communities.

2. MISSION

Communities will employ pharmaceutical and nonpharmaceutical measures to counter the effects of an influenza pandemic. CDC will provide timely guidance and support to communities.

3. EXECUTION

a. Concept of Operations

From the initial emergence of an influenza pandemic and through subsequent pandemic waves, the public health and healthcare sectors can utilize an assortment of intervention strategies and operational techniques to stop (contain) or slow/limit (mitigate) emergence, importation, spread, and impact of pandemic influenza. Interventions can be classified as case-based, population-based, or personal-based.

- 1) Case-based interventions for pandemic influenza focus on direct management of ill persons and their close contacts to prevent new infections and limit chains of transmission. Operational techniques involve recognition, confirmation, isolation and treatment of case-patients plus the identification, quarantine, and antiviral prophylaxis of contacts. Case based interventions can be utilized especially during the pandemic alert period as part of international or domestic containment efforts to stop a pandemic from emerging or delaying amplification of transmission in a community.
- 2) Population-based interventions include actions directed at susceptible groups or entire communities to delay spread. These include a variety of social distancing techniques as well as mass prophylaxis (used in specialized containment efforts) and mass vaccination.
- 3) Personal-based interventions are behavioral risk-reduction actions that further limit exposure among susceptible persons. These include voluntary self-sheltering, standard infection





control practices among healthcare workers, hand hygiene, respiratory etiquette, and disinfection of potentially contaminated surfaces.

- 4) These three classes of intervention strategies and techniques are summarized in Table 9, below:

Table 9: Classes Of Intervention Strategies And Techniques	
Intervention Strategy	Intervention Technique
Case-Based Interventions	
Separate ill or infectious persons from others in the general population to restrict interaction with susceptible persons	Case (patient) management—Isolation (pending or following laboratory confirmation)
Treat symptomatic persons to mitigate disease, suffering, and death, and reduce infectiousness	Case (patient) management—Antiviral treatment
Separate exposed persons (prospective or potential cases) from the general population to stop new chains of transmission from beginning	Contact management—Contact quarantine (mandatory or voluntary) (following contact tracing)
Provide medical prophylaxis to prospective cases to treat sub-clinical infection	Contact management—Antiviral prophylaxis (active)
Population-Based Interventions	
Separate exposed groups from the general population to stop new chains of transmission from beginning	Contact management—Group quarantine (voluntary) (following exposure in a defined group or site)
Reduce the interaction of potentially exposed groups and infectious persons in the general environment to stop new chains of transmission from beginning	Social distancing including: Limitations on location-based gatherings/events (compulsory and voluntary) (e.g., schools, work sites, mass gatherings, public transportation, etc.) Travel restrictions (compulsory and voluntary) to and from affected areas (domestic and international)
Provide medical prophylaxis to potentially exposed groups to reduce susceptibility	Risk group antiviral prophylaxis (passive) (e.g., nursing home residents, etc.)
Provide mass medical prophylaxis to potentially exposed groups to treat sub-clinical infection	Risk zone antiviral prophylaxis (active/targeted as in a containment event)
Actively reduce susceptibility in the general population	Immunization with pandemic vaccine
Personal-Based Interventions	
Reduce the interaction of susceptible and infectious persons in the general environment to stop new chains of transmission from beginning	Self-sheltering (voluntary)
Use personal physical barriers that reduce the risk of infection in frequently exposed individuals	Personal protective equipment (PPE) and infection control in EMS and healthcare settings
Preventively remove infectious organisms acquired by inadvertent contact with infectious persons or contaminated objects	Hand hygiene
Limit respiratory spread of infectious organisms	Respiratory etiquette
Disinfect or dispose of objects contaminated by infectious persons	Environmental disinfection in EMS, healthcare, and other settings





- 5) This Annex focuses on public health interventions in general and highlights the importance of pharmaceutical interventions (antiviral drugs and vaccines) and nonpharmaceutical interventions (community mitigation) and their roles in an influenza pandemic, to include CDC's responsibilities for them.
- 6) Domestic Response. If containment abroad and efforts to prevent importation fail, and an introduction of pandemic influenza into the United States appears inevitable or has begun, U.S. communities will be required to mobilize resources and implement interventions directed at stopping, limiting or otherwise slowing the spread of disease throughout the country. This could minimize suffering and death, reducing economic and social effects of an influenza pandemic. CDC will provide containment and mitigation support to community efforts via ESF #8, with technical assistance, financial aid (as available), materials, and formal guidance.

b. Pharmaceutical and Medical Countermeasures

COTPER (DSNS) works closely with SLTT governments during their pandemic preparedness efforts and focuses on providing assistance with planning, coordinating, and distributing pharmaceutical and medical countermeasures (antiviral drugs, intravenous antibiotics, PPE, ventilators, and other medical supplies). Unlike other commodities discussed here, vaccine will not be shipped to SLTTs via SNS. CCID will coordinate the delivery of pandemic vaccine from the manufacturer to recipients designated by SLTT health departments. Cooperative agreements have provided SLTT partners with federal funds to accomplish influenza planning and preparedness. COTPER (DSNS) has provided SLTT governments with planning guidance and training assistance to increase their readiness. In the State and Local Pandemic Influenza Planning Checklist, HHS/OS encourages SLTT governments to provide adequate planning to receive, stage and store (RSS) SNS assets, to have the necessary infrastructure in place to disseminate SNS assets to local facilities and to provide the necessary physical and protective security measures for storage and transport of SNS assets. OSEP/OD/CDC may be required to coordinate additional security.



**c. Countermeasure Tasks (Antiviral Drugs)****Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)****1) DSNS**

- a) Procure and maintain antiviral drugs and other countermeasures in accordance with goals established by HHS and CDC.
- b) Develop plans to distribute antiviral drugs and other countermeasures in accordance with allocations and priorities set by HHS/OS as well as National, HHS, and CDC plans
- c) Deploy Federal Medical Stations (FMS) – as directed.

Pandemic Alert Period: (WHO Phases 4-5; USG Stage 2)**1) DSNS**

- a) On order, distribute up to 5% of antiviral drugs to international sites.
- b) Push out antiviral drugs *pro rata* to 62 project areas
- c) Distribute masks and respirators *pro rata* to 62 project areas. Refer to Appendix 1 (Antiviral Drug Distribution and Use) to ANNEX F.
- d) On order, ship additional SNS assets (PPE, ventilators, intravenous antibiotics, and medical supplies), *pro rata* to project areas. Refer to Appendix 1 (Antiviral Drug Distribution and Use) to ANNEX F.
- e) Acquire replacements for all above as funds become available.

Pandemic Period: (WHO Phase 6; USG Stages 3-6)**1) DSNS:**

- a) Coordinate the distribution of antiviral drugs and other countermeasures to SLTT RSS.
- b) Plan for receipt and utilization of additional pandemic funds.
- c) Pack replacement antiviral drugs and other countermeasures in preparation for shipment to newly designated locations.
- d) Containment stockpile (domestic) - TBD

2) NCIRD:

- a) Monitor the effectiveness of antiviral drugs.
- b) Monitor the safety of antiviral drugs.





d. Countermeasure Tasks (Vaccines)

Inter-Pandemic Period: (WHO Phase 1-2; USG Stage 0)

1) NCIRD:

- a) Provide guidelines and training for SLTT health care providers.
- b) Assist SLTT groups with planning for the allocation and distribution of vaccines to pre-designated sites, as well as the receipt and further distribution of vaccines to the end user.
- c) Negotiate vaccine purchase contracts to include stipulations that manufacturers must provide vaccine security during the manufacturing process and shipment to pre-designated sites.
- d) Work with manufacturers in developing a distribution and notification of shipment plan to facilitate direct shipping to pre-designated sites.
- e) Develop guidance for SLTT groups for designing immunization clinic layout, identifying key functions, recruiting clinic staff to fill key functions, and training clinic staff on patient flow management and vaccination procedures.
- f) Develop vaccination messages directed to providers, the press, and the general public about influenza, influenza vaccine, rationale for use of priority groups, administration of additional vaccine doses if required.
- g) Assist HHS/OS in developing guidelines for prioritization and sub-prioritization of immunizations.
- h) Plan for vaccine effectiveness studies.

2) Science Vision and Alliances Team, Office of Chief Science Officer (OCSO):

- a) Identify and disseminate guidance to CDC Leadership Team on all ethical issues regarding vaccines.

Pandemic Alert Period: (WHO Phase 4-5; USG Stage 2)

1) NCIRD:

- a) On order, notify vaccine manufacturers to distribute vaccine to pre-designated sites.
- b) Notify SLTT pre-designated sites, via a contract call center, about shipment tracking numbers to ensure safe delivery.





- c) Disseminate HHS/OS driven priority and sub-priority vaccination guidelines through public and private sector partners.
- d) Provide information to SLTT groups on vaccine receipt procedures, and storage of vaccines and ancillary supplies.
- e) Establish plans for tracking population vaccination coverage levels (with National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP)).

Pandemic Period: (WHO Phase 6; USG Stages 3-6)**1) NCIRD:**

- a) Assist with the revision of HHS/OS prioritization guidelines based upon the characteristics of the pandemic.
- b) Distribute HHS/OS procured pre-pandemic influenza vaccine along with ancillary supplies within 24 hours of notification to designated locations according to HHS/OS vaccination priorities.
- c) Compile and analyze vaccine dose tracking information and share with SLTTs (with NCPHI).
- d) Assess vaccine effectiveness.
- e) Monitor the impact of antigenic drift on the potential efficacy of different vaccination approaches.
- f) Track population vaccination coverage levels (with NCCDPHP).

2) OCSO:

- (1) Monitor the safety of vaccines.

e. Coordinating Instructions:

- 1) To request a current copy of the "Receiving, Distributing and Dispensing National Stockpile Assets, A Guide for Preparedness" email the CDC Division of Strategic National Stockpile, Program Preparedness Branch at SNS_PPB@cdc.gov.
- 2) Refer to Appendix 1 (Informatics) to Annex K (Information Management) for tracking countermeasures.





- 3) For antiviral and vaccine specific taskings on a webpage, access CDC Influenza Pandemic Action Register. Enter COTPER/DEOC portal (<http://eocportal.cdc.gov>); scroll down to Pandemic Flu Planning event window, and click on CDC Influenza Pandemic Action Register. Select “Strategic National Stockpile” in the drop down box entitled “Division for DSNS Taskings.” Select “ISD” in the drop down box entitled “Division for Vaccine Taskings.”

See Annex E Reference 6 and Appendix 3 (Community Mitigation) to Annex F for more detailed information on nonpharmaceutical intervention strategies.

4. SUPPORT SERVICES

Refer to Base OPLAN paragraph 4.

5. MANAGEMENT AND COMMUNICATIONS

Refer to Annex K (Information Management).

APPENDIXES

1. Use of Antiviral Drugs
2. Pandemic Influenza Vaccinations
3. Community Mitigation
4. Management and Distribution of Antiviral Drugs and Other Countermeasures





APPENDIX 1 (USE OF ANTIVIRAL DRUGS) TO ANNEX F

TO BE PUBLISHED



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APPENDIX 2 (PANDEMIC INFLUENZA VACCINATION) TO ANNEX F

REFERENCE:

Centers for Disease Control and Prevention, Pandemic Influenza Vaccination: A Guide for State, Local, Territorial and Tribal Planners, December 11, 2006

1. SITUATION

a. Assumptions

- 1) Vaccine production will require 4 – 6 months from the time the pandemic vaccine strain is selected.
- 2) Only U.S.-manufactured vaccines will be available for U.S. purchase during a pandemic.
- 3) Availability of pandemic vaccine will be a function of both manufacturing capacity and use of adjuvants. Planners should assume that the amount of vaccine produced monthly will cover 1.5% of the population (with 2 doses). Planners should note that supply could be greater or smaller.
- 4) Up to 20 million persons, critical to the maintenance of the national infrastructure will be vaccinated with stockpiled pre-pandemic vaccine once sustained person-to-person transmission has been documented anywhere in the world.
- 5) Priority groups are divided into occupationally-defined groups and risk-based groups.
- 6) Priority groups for pre-pandemic and pandemic vaccination are currently under review and release of the recommendations is anticipated in April 2007. Priority group recommendations are subject to change based on epidemiological information once a pandemic begins.
- 7) Medical materiel to support the administration of vaccinations will be the responsibility of the administering activity.

b. Planning Considerations

- 1) A pandemic vaccination program will take place over many months and involve vaccinating an unprecedented number of persons. It will likely unfold in several phases:
 - a) Phase 1: Vaccination with stockpiled pre-pandemic vaccine, conducted by public health.





- b) Phase 2: Vaccination with pandemic vaccine, conducted by public health (or designees).
- c) Phase 3: Vaccination with pandemic vaccine, conducted by the private sector.
- 2) Vaccine administration must be carefully controlled due to limited supply, and must be targeted to priority groups.
- 3) Vaccine availability may be more or less than planned; therefore flexibility in planning is essential.
- 4) Maintaining sufficient staffing for the vaccination effort will be a key challenge given the anticipated duration of the pandemic vaccination program. Delegation of vaccination to other institutions or agencies where appropriate will help free up public health personnel for other activities.

2. VACCINE DISTRIBUTION AND ALLOCATION

Project areas will determine allocation of vaccine within their jurisdictions. Distribution of vaccine will involve shipment to pre-arranged ship-to sites in each project area. Project areas will be responsible for security of vaccine at these storage sites.

a. Planning actions by project areas

- 1) Estimate weekly allocation of vaccine based on vaccine availability assumptions and population size.
- 2) Designate up to 100 storage sites. These sites may be local or tribal health departments, as well as clinical settings such as hospitals.
- 3) Determine allocation of vaccine to each site.
- 4) Determine further allocation of vaccine from storage sites, if applicable.
- 5) Ensure availability of sufficient cold storage at all locations.
- 6) Determine how vaccine will be transported to each vaccinating site.
- 7) Develop chain of custody procedures.
- 8) Develop a vaccine security plan.

b. Distribution considerations

- 1) The major advantage of having limited storage sites is greater control over vaccine stocks.





- 2) The major disadvantage of having limited storage sites is the increased need for resources for repackaging, local transport, and security.

c. Allocation considerations

- 1) For occupationally-defined groups: allocation of vaccine within project areas will need to be based on location of employment.
- 2) For risk-based groups, vaccine should be allocated based upon total population size.

d. Security considerations

- 1) The limited supply of pandemic vaccine will render it an extremely valuable resource. Security planning at all levels, from ship-to sites to administration, must be comprehensive and rigorous.
- 2) Law enforcement must be an active partner in planning at both state and local levels with clear delineation of roles and expectations.

3. VACCINATION OF PRIORITY GROUPS

a. Planning actions

- 1) For each target group, determine whether it will be vaccinated by public health, by institutions to which the responsibility has been delegated, or a combination of both.
- 2) Develop memoranda of agreement, where applicable.

b. Develop protocols for verification of priority group membership.

c. Considerations for vaccination of specific groups:

- 1) Inpatient healthcare workers and support staff.
 - a) Vaccination delegated to hospitals, nursing homes, etc. A point-of-contact at each institution should be identified to be responsible for ensuring that all eligible staff are vaccinated and that dose tracking requirements are met.
 - b) When vaccinations are provided by the public health department, the healthcare institution should provide a list of eligible personnel.





- 2) Outpatient healthcare workers and support staff.
 - a) Distribution sites should be designated where medical office staff may pick up vaccine stocks.
 - b) Public healthcare departments may elect to centralize vaccination of medical offices to prevent waste.
 - c) Medical offices may be required to prioritize staff recipients of vaccine within the office to best enable them to continue to provide services.
- 3) Public safety personnel may be vaccinated by public health departments or delegated to healthcare institutions.
 - a) Large police and fire departments may have internal resources to administer vaccines.
 - b) EMS groups may be called upon to vaccinate personnel.
- 4) Persons responsible for critical infrastructure: TBD
- 5) Persons at risk of serious outcomes and their contacts: TBD

d. Considerations for verification of priority group membership.

- 1) Validated lists should be provided to ensure that vaccine is not used for persons outside the priority group (such as family members).
- 2) Risk-based groups may be verified by requiring a doctor's statement or copies of prescriptions
- 3) Public health departments should encourage persons with chronic conditions to seek documentation before the onset of a pandemic.

4. LOGISTICS ISSUES

a. Planning actions

- 1) Determine number and location of clinics.
- 2) Estimate number of doses to be administered per shift.
- 3) Determine staffing requirements for each clinic to support long term activity.
- 4) Identify sources of staffing and develop MOAs.
- 5) Develop training plans.





- 6) Develop security plans which consider crowd control and vaccine security.
- 7) Develop incident response plans for potential riots and other incidents.
- 8) Develop plans for administration of second dose which consider provision of information about need and scheduling.
- 9) Develop infection control plan
- 10) Conduct vaccination clinic exercises.

b. Planning considerations

- 1) Large scale vaccination planning must consider both accessibility to clinics and available staffing.
- 2) Infection control measures may include:
 - a) Separate potential influenza cases from non-ill persons.
 - b) Select large facilities to lessen crowding.
 - c) Minimize wait times by issuing tickets or reservations.
 - d) Hold open air clinics where feasible.
 - e) Offer hand hygiene materials, tissues, and waste receptacles on site.
 - f) Consider provision of masks for clinic staff, and potentially to vaccinees where clinic crowding cannot be avoided.
- 3) Tribal Populations
 - a) No separate allocation for IHS-served populations, so IHS and tribal planners must be included in state and local planning.
 - b) Cross border planning must be ensured where appropriate.
 - c) Indian Health Service and tribal community healthcare personnel should staff tribal vaccination clinics.
- 4) Special Needs Populations
 - a) Ensure information is available in local languages.
 - b) Accommodate personnel without transportation and those requiring specialized transportation.
 - c) Accommodate the needs of people with physical disabilities..





- d) Plan for vaccinating homebound persons.
- e) Ensure communication with special needs populations.

5. DOSE ADMINISTRATION.

a. Planning actions:

- 1) Determine how minimum data elements and other project area-required data will be collected at administration sites (minimum data elements: date of administration, age group, priority group, 1st or 2nd dose).
- 2) Determine how data will be transmitted from administration sites to local and state health departments.
- 3) Determine how minimum data elements will be transmitted to CDC.
- 4) Determine personnel needs.
- 5) Develop a training plan.
- 6) Determine equipment needs.

b. Planning considerations for tracking of vaccine doses administered:

There will be 3 main options for transmission of these data: use of Immunization Information Systems, direct entry of patient level information into the Countermeasure Response Administration (CRA) system or manual data collection with entry of aggregate information into CRA (only aggregate information will be transmitted to CDC).

c. Planning consideration for ascertainment of vaccine coverage.

State level coverage will be ascertained using either the Behavioral Risk Factor Surveillance System, or the National Immunization Survey.

6. VACCINE SAFETY MONITORING.

a. Planning actions:

- 1) Designate a vaccine safety coordinator.
- 2) Review policies for reporting adverse events.
- 3) Develop a plan to ensure timely reporting of adverse events when volume is large.





- 4) Familiarize program staff with reporting procedures.
- 5) Planning considerations: VAERS will serve as the foundation for adverse event monitoring, and will be augmented in ways to strengthen its capacity.

b. Administering vaccine under Emergency Use Authorization:

If a national emergency is declared by the Secretary, HHS, the FDA Commissioner may authorize the use of an unapproved medical product or an unapproved use of an approved medical product. EUA requirements include:

- 1) Record keeping (vaccinee's name and contact information)
- 2) Distribution of information sheets to healthcare providers and patients.
- 3) Adverse event reporting via VAERS.





APPENDIX 3 (COMMUNITY MITIGATION) TO ANNEX F

REFERENCE:

Centers for Disease Control and Prevention. Interim Pre-Pandemic Planning Guidance: Community Strategy for Pandemic Influenza Mitigation in the United States – Early, Targeted, Layered Use of Nonpharmaceutical Interventions, February 2007.

1. SITUATION

a. Center of Gravity:

During a nation-wide influenza pandemic, the main thrust of domestic pandemic response will occur in local communities. CDC's operational role in nonpharmaceutical interventions (NPI) will be interpretation, assessment, monitoring, and evaluation.

b. Goals:

The goals of the Federal Government's response to an influenza pandemic (USG Stage 5) are to limit the spread of a pandemic; mitigate disease, suffering, and death; and sustain infrastructure and lessen the impact on the economy and the functioning of society.

c. Background:

Mathematical modeling and historical analysis of influenza pandemic scenarios in the United States suggest that pandemic mitigation strategies utilizing multiple NPIs may decrease transmission substantially. Even greater reductions may be achieved when such measures are combined with the targeted use of antiviral medications for treatment and prophylaxis. Recent preliminary analyses of cities affected by the 1918 pandemic show a highly significant association between the early use of multiple NPIs and reductions in peak and overall death rates. Without mitigating interventions such as NPIs, even a less severe pandemic would likely result in dramatic increases in the number of hospitalizations and deaths. In addition, an unmitigated severe pandemic would likely overwhelm our nation's critical healthcare services and impose significant stress on our nation's critical infrastructure. Ultimately, reducing the number of persons infected is a primary goal of pandemic planning. NPIs may help reduce





influenza transmission by reducing contact between sick and uninfected persons, thereby reducing the number of infected persons.

Reducing the number of persons infected will also lessen the need for healthcare services and minimize the impact of a pandemic on the economy and society. The surge of need for medical care that would occur following a poorly mitigated severe pandemic can be addressed only partially by increasing capacity within hospitals and other care settings. Reshaping the demand for healthcare services by using NPIs is an important component of the overall mitigation strategy. In practice, this means reducing the burdens on the medical and public health infrastructure by decreasing demand for medical services at the peak of the epidemic and throughout the epidemic wave; by spreading the aggregate demand over a longer time; and, to the extent possible, by reducing net demand through reduction in patient numbers and case severity.

Communities must be prepared for the cascading second- and third-order consequences of the interventions, such as increased workplace absenteeism related to child-minding responsibilities if schools dismiss students and childcare programs close.

d. Assumptions

- 1) A well-matched pandemic strain vaccine will not be available when a pandemic begins.
- 2) At the onset of a first pandemic wave, there will not be sufficient quantities of influenza antiviral medications available for general distribution.
- 3) Existing antiviral medications may not be effective against a future pandemic strain.
- 4) Implementing targeted, layered NPIs in a timely and coordinated fashion will require advanced planning.

2. MISSION

Communities will target those at the nexus of transmission and will implement layered, multiple nonpharmaceutical interventions to mitigate the effects of a pandemic by reducing transmission to the greatest extent possible.





3. EXECUTION

a. Concept

The use of NPIs for mitigating a community-wide epidemic has three major goals:

- 1) Delay the exponential growth in incident cases and shift the epidemic curve to the right in order to “buy time” for production and distribution of a well-matched pandemic strain vaccine.
- 2) Decrease the epidemic peak.
- 3) Reduce the total number of incident cases, thus reducing community morbidity and mortality.

b. Intent

The use of non-pharmaceutical interventions to mitigate an influenza pandemic is one component of a comprehensive community mitigation strategy that includes both pharmaceutical and non-pharmaceutical measures. Combining the use of antiviral medications with these interventions may enhance the overall effectiveness of non-pharmaceutical strategies.

c. Framework

The pandemic mitigation framework that is proposed is based upon an early, targeted, layered application of multiple partially effective non-pharmaceutical measures. Measures should be initiated early before explosive growth of the epidemic and, in the case of severe pandemics, maintained consistently during an epidemic wave in a community. The pandemic mitigation interventions include:

- 1) Isolation and treatment with influenza antiviral medications of all persons with confirmed or probable pandemic influenza. Isolation may occur in the home or healthcare setting, depending on the severity of an individual’s illness and/or the current capacity of the healthcare infrastructure.
- 2) Voluntary home quarantine of members of households that are in contact with confirmed or probable influenza case(s) of pandemic influenza.
- 3) Dismissal of children from school classrooms and child care programs along with preventing the re-congregation of children in similarly dense enclosed spaces.





- 4) Use of social distancing of adults in the community which may include cancellation of large public gatherings.

All such community-based strategies should be used in combination with individual infection control measures, such as hand washing and cough etiquette.

d. Role of SLTT

Decisions about what tools should be used during a pandemic will be made by SLTT authorities and should be based on the observed severity of the event, its impact on specific subpopulations, the expected benefit of the interventions, the feasibility of success in modern society, the direct and indirect costs, and the consequences on critical infrastructure, healthcare delivery, and society.

The most controversial elements (e.g., prolonged dismissal of students from schools and closure of child care programs) are not likely to be needed in less severe pandemics, but these steps may save lives during severe pandemics. Just as communities plan and prepare for mitigating the effect of severe natural disasters (e.g., hurricanes), so they should also plan and prepare for mitigating the effect of a severe pandemic.

4. COORDINATING INSTRUCTIONS

a. The Pandemic Severity Index (PSI)

- 1) The Pandemic Severity Index, which uses case fatality ratio as the critical driver for categorizing the severity of a pandemic (Figure A), is designed to enable estimation of the severity of a pandemic on a population level to allow better forecasting of the impact of a pandemic and to enable recommendations to be made on the use of mitigation interventions that are matched to the severity of future influenza pandemics.

- 2) Categories

Future pandemics will be assigned to one of five discrete categories of increasing severity (Category 1 to Category 5). The Pandemic Severity Index provides communities a tool for scenario-based contingency planning to guide local pre-pandemic preparedness efforts.

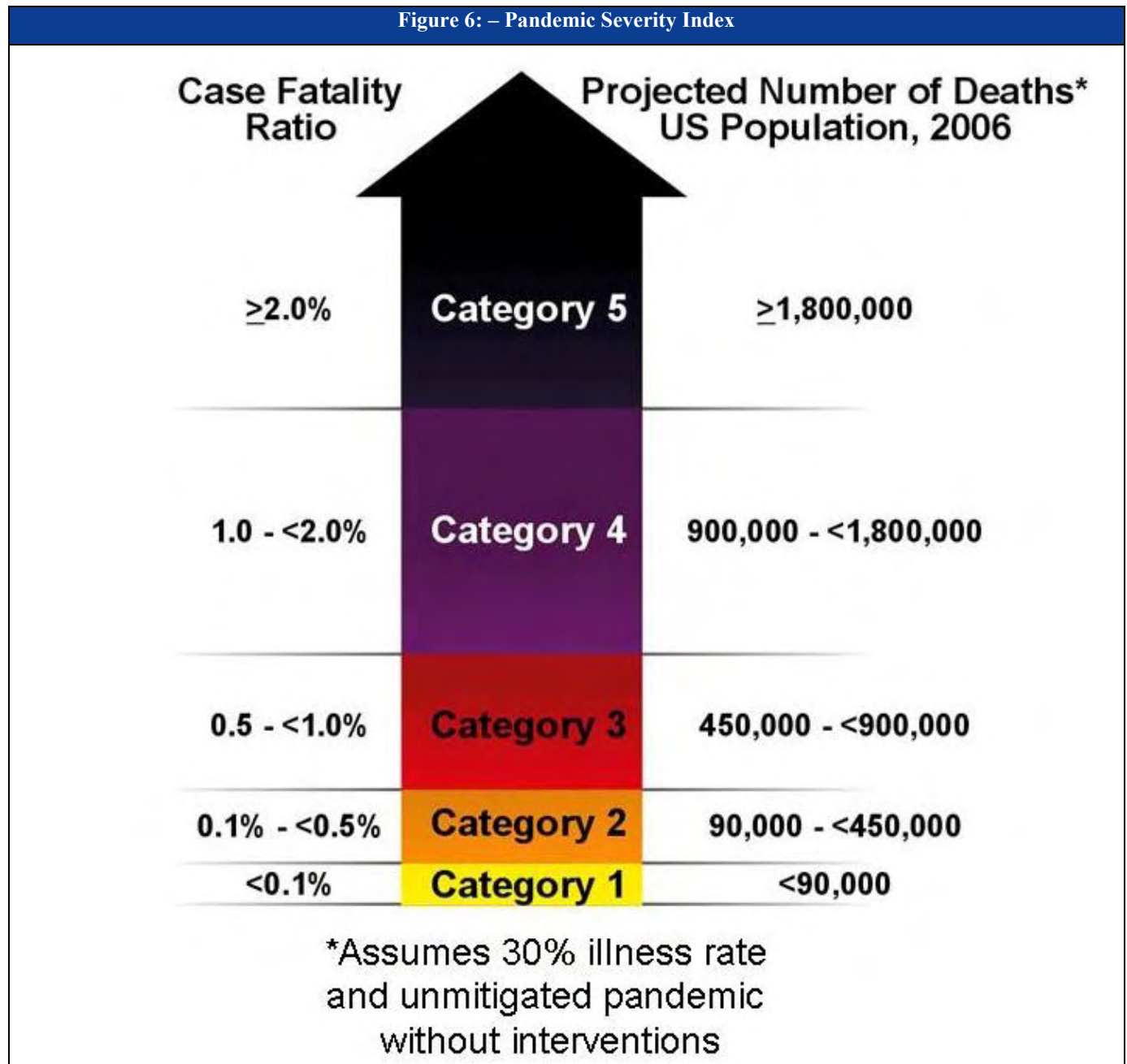
Accordingly, communities facing the imminent arrival of pandemic disease will be able to





use the pandemic severity assessment to define which pandemic mitigation interventions are indicated.

Figure 6: – Pandemic Severity Index



3) Use of Nonpharmaceutical Interventions by Severity Category



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CDC's interim NPI guidance proposes a community mitigation strategy that matches recommendations on planning for use of selected NPIs to categories of severity of an influenza pandemic. These planning recommendations are made on the basis of an assessment of the possible benefit to be derived from implementation of these measures weighed against the cascading second- and third-order consequences that may arise from their use. Cascading second- and third-order consequences are chains of effects that may arise because of the intervention and may require additional planning and intervention to mitigate. The term generally refers to foreseeable unintended consequences of intervention. For example, dismissal of students from school may lead to the second-order effect of workplace absenteeism for child minding. Subsequent workplace absenteeism and loss of household income could be especially problematic for individuals and families living at or near subsistence levels. Workplace absenteeism could also lead to disruption of the delivery of goods and services essential to the viability of the community.

- 4) For Category 4 or Category 5 pandemics, a planning recommendation is made for use of all listed NPIs (Table A). In addition, planning for dismissal of students from schools and school-based activities and closure of childcare programs, in combination with means to reduce out-of-school social contacts and community mixing for these children, should encompass up to 12 weeks of intervention in the most severe scenarios. This approach to pre-pandemic planning will provide a baseline of readiness for community response. Recommendations for use of these measures for pandemics of lesser severity may include a subset of these same interventions and potentially for shorter durations, as in the case of social distancing measures for children.
- 5) For Category 2 and Category 3 pandemics, planning for voluntary isolation of ill persons is recommended; however, other mitigation measures (e.g., voluntary quarantine of household members and social distancing measures for children and adults) should be implemented only if local decision-makers determine their use is warranted due to characteristics of the pandemic within their community. Pre-pandemic planning for the use of mitigation strategies within these two Pandemic Severity Index categories should be done with a focus on a





duration of 4 weeks or less, distinct from the longer timeframe recommended for the more severe Category 4 and Category 5 pandemics. For Category 1 pandemics, voluntary isolation of ill persons is generally the only community-wide recommendation, although local communities may choose to tailor their response to Category 1-3 pandemics by applying NPIs on the basis of local epidemiologic parameters, risk assessment, availability of countermeasures, and consideration of local healthcare surge capacity. Thus, from a pre-pandemic planning perspective for Category 1, 2, and 3 pandemics, capabilities for both assessing local public health capacity and healthcare surge, delivering countermeasures, and implementing these measures in full and in combination should be assessed.

Table 9: Summary of the Community Mitigation Strategy by Pandemic Severity

Interventions* by Setting	Pandemic Severity Index		
	1	2 and 3	4 and 5
Home			
Voluntary isolation of ill at home (adults and children); combine with use of antiviral treatment as available and indicated	Recommend†§	Recommend†§	Recommend †§
Voluntary quarantine of household members in homes with ill persons¶ (adults and children); consider combining with antiviral prophylaxis if effective, feasible, and quantities sufficient	Generally not recommended	Consider **	Recommend **
School			
Child social distancing			
-dismissal of students from schools and school based activities, and closure of child care programs	Generally not recommended	Consider: ≤4 weeks††	Recommend: ≤12 weeks§§
-reduce out-of school social contacts and community mixing	Generally not recommended	Consider: ≤4 weeks ††	Recommend: ≤12 weeks§§
Workplace / Community			
Adult social distancing			
-decrease number of social contacts (e.g., encourage teleconferences, alternatives to face-to-face meetings)	Generally not recommended	Consider	Recommend
-increase distance between persons (e.g., reduce density in public transit, workplace)	Generally not recommended	Consider	Recommend
-modify, postpone, or cancel selected public gatherings to promote social distance (e.g., stadium events, theater performances)	Generally not recommended	Consider	Recommend
-modify work place schedules and practices (e.g., telework, staggered shifts)	Generally not recommended	Consider	Recommend

Generally Not Recommended = Unless there is a compelling rationale for specific populations or jurisdictions, measures are generally not recommended for entire populations as the consequences may outweigh the benefits.





Consider = Important to consider these alternatives as part of a prudent planning strategy, considering characteristics of the pandemic, such as age-specific illness rate, geographic distribution, and the magnitude of adverse consequences. These factors may vary globally, nationally, and locally.

Recommended = generally recommended as an important component of the planning strategy.

*All these interventions should be used in combination with other infection control measures, including hand hygiene, cough etiquette, and personal protective equipment such as face masks. Additional information on infection control measures is available at www.pandemicflu.gov.

†This intervention may be combined with the treatment of sick individuals using antiviral medications and with vaccine campaigns, if supplies are available

§Many sick individuals who are not critically ill may be managed safely at home

¶The contribution made by contact with asymptomatically infected individuals to disease transmission is unclear. Household members in homes with ill persons may be at increased risk of contracting pandemic disease from an ill household member. These household members may have asymptomatic illness and may be able to shed influenza virus that promotes community disease transmission. Therefore, household members of homes with sick individuals would be advised to stay home.

**To facilitate compliance and decrease risk of household transmission, this intervention may be combined with provision of antiviral medications to household contacts, depending on drug availability, feasibility of distribution, and effectiveness; policy recommendations for antiviral prophylaxis are addressed in a separate guidance document.

††Consider short-term implementation of this measure—that is, less than four weeks.

§§Plan for prolonged implementation of this measure—that is, one to three months; actual duration may vary depending on transmission in the community as the pandemic wave is expected to last six to eight weeks.

b. Triggers for Initiating Use of Nonpharmaceutical Interventions

The timing of initiation of various NPIs will influence their effectiveness. Implementing these measures prior to the pandemic may result in economic and social hardship without public health benefit and, over time, may result in “intervention fatigue” and erosion of public adherence.

Conversely, implementing these interventions after extensive spread of pandemic influenza illness in a community may limit the public health benefits of employing these measures.

Identifying the optimal time for initiation of these interventions will be challenging because implementation needs to be early enough to preclude the initial steep upslope in case numbers and long enough to cover the peak of the anticipated epidemic curve while avoiding intervention fatigue.

CDC NPI guidance suggests that the primary activation trigger for initiating interventions be the arrival and transmission of pandemic virus. This trigger is best defined by a laboratory-





confirmed cluster of infection with a novel influenza virus and evidence of community transmission (i.e., epidemiologically linked cases from more than one household).

Defining the proper geospatial-temporal boundary for this cluster is complex and should recognize that our connectedness as communities goes beyond spatial proximity and includes ease, speed, and volume of travel between geopolitical jurisdictions (e.g., despite the physical distance, Hong Kong, London, and New York City may be more epidemiologically linked to each other than they are to their proximate rural provinces/areas). In order to balance connectedness and optimal timing, it is proposed that the geopolitical trigger be defined as the cluster of cases occurring within a U.S. State or proximate epidemiological region (e.g., a metropolitan area that spans more than one State's boundary). It is acknowledged that this definition of "region" is open to interpretation; however, it offers flexibility to State and local decision-makers while underscoring the need for regional coordination in pre-pandemic planning.

From a pre-pandemic planning perspective, the steps between recognition of a pandemic threat and the decision to activate a response are critical to successful implementation. Thus, a key component is the development of scenario-specific contingency plans for pandemic response that identify key personnel, critical resources, and processes. To emphasize the importance of this concept, guidance on triggers introduces the terminology of Alert, Standby, and Activate, which reflect key steps in escalation of response action.





Table 10: Triggers for Implementation of Mitigation Strategies by Pandemic Severity Index and U.S. Government Stages

Pandemic Severity Index	WHO Phase 6, U.S. Government Stage 3*	WHO Phase 6, U.S. Government Stage 4† and First human case in United States	WHO Phase 6, U.S. Government Stage 5§ and First laboratory-confirmed cluster in State or region¶
1	Alert	Standby	Activate
2 and 3	Alert	Standby	Activate
4 and 5	Standby**	Standby/Activate ††	Activate

Alert: Notification of critical systems and personnel of their impending activation.

Standby: Initiate decision-making processes for imminent activation, including mobilization of resources and personnel.

Activate: Implementation of the community mitigation strategy.

*Widespread human outbreaks in multiple locations overseas.

†First human case in North America.

§Spread throughout the United States.

¶Recommendations for regional planning acknowledge the tight linkages that may exist between cities and metropolitan areas that are not encompassed within state boundaries.

**Standby applies. However, Alert actions for Category 4 and 5 should occur during WHO Phase 5, which corresponds to U.S. Government Stage 2.

††Standby/Activate Standby applies unless the laboratory-confirmed case cluster and community transmission occurs within a given jurisdiction, in which case that jurisdiction should proceed directly to Activate community interventions defined in Table A.

Pre-pandemic planning for use of these interventions should be directed to lessening the transition time between Alert, Standby, and Activate. The speed of transmission may drive the amount of time decision-makers are allotted in each mode, as does the amount of time it takes to fully implement the intervention once a decision is made to Activate.





For the most severe pandemics (Categories 4 and 5), Alert is implemented during WHO Phase 5/U.S. Government Stage 2 (confirmed human outbreak overseas), and Standby is initiated during WHO Phase 6/U.S. Government Stage 3 (widespread human outbreaks in multiple locations overseas). Standby is maintained through Stage 4 (first human case in North America), with the exception of the State or region in which a cluster of laboratory-confirmed human pandemic influenza cases with evidence of community transmission is identified. The recommendation for that State or region is to Activate the appropriate NPIs when identification of a cluster with community transmission is made. Other States or regions Activate appropriate interventions when they identify laboratory-confirmed human pandemic influenza case clusters with evidence of community transmission in their jurisdictions.

For Category 1, 2, and 3 pandemics, Alert is declared during U.S. Government Stage 3, with step-wise progression by States and regions to Standby based on U.S. Government declaration of Stage 4 and the identification of the first human pandemic influenza case(s) in the United States. Progression to Activate by a given State or region occurs when that State or region identifies a cluster of laboratory-confirmed human pandemic influenza cases with evidence of community transmission in their jurisdiction.

c. Duration of Implementation

It is important to emphasize that as long as susceptible individuals are present in large numbers, disease spread may continue. Immunity to infection with a pandemic strain can only occur after natural infection or immunization with an effective vaccine. Preliminary analysis of historical data from selected U.S. cities during the 1918 pandemic suggests that duration of implementation is significantly associated with overall mortality rates. Stopping or limiting the intensity of interventions while pandemic virus was still circulating within the community was temporarily associated with increases in mortality due to pneumonia and influenza in many communities.

It is recommended for planning purposes that communities be prepared to maintain interventions for up to 12 weeks, especially in the case of Category 4 or Category 5 pandemics, where recurring epidemic waves may have significant impact. However, for less severe pandemics





(Category 2 or 3), a shorter period of implementation may be adequate for achieving public health benefit. This planning recommendation acknowledges the uncertainty around duration of circulation of pandemic virus in a given community and the potential for recrudescent disease when use of NPIs is limited or stopped, unless population immunity is achieved.

d. Critical Issues for the Use of Nonpharmaceutical Interventions

A number of outstanding issues should be addressed to optimize the planning for use of these measures. These issues include the establishment of sensitive and timely surveillance, the planning and conducting of multi-level exercises to evaluate the feasibility of implementation and the identification and establishment of appropriate monitoring and evaluation systems. Policy guidance in development regarding the use of antiviral medications for prophylaxis, community and workplace-specific use of personal protective equipment, and safe home management of ill persons must be prioritized as part of future components of the overall community mitigation strategy. In addition, generating appropriate risk communication content/materials and an effective means for delivery, soliciting active community support and involvement in strategic planning decisions, and assisting individuals and families in addressing their own preparedness needs are critical factors in achieving success.





**APPENDIX 4 (MANAGEMENT AND DISTRIBUTION OF ANTIVIRAL DRUGS
AND OTHER COUNTERMEASURES) TO ANNEX F**

TO BE PUBLISHED



**DEPARTMENT OF HEALTH AND HUMAN SERVICES
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ANNEX G (STATE, LOCAL, TERRITORIAL AND TRIBAL SUPPORT)

1. SITUATION

- a. The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence).
- b. Mission and Intent of Higher and Supporting Organizations: Refer to the Base OPLAN.
- c. Environment: Refer to Annex B (Disease Intelligence).

2. MISSION.

CDC supports State, Local, Territorial, and Tribal (SLTT) organizations' public health sector preparedness activities for influenza pandemic and collaborates with public health and healthcare partners to implement plans in order to slow transmission and reduce the impact of the pandemic.

3. EXECUTION

a. Concept of Operations.

CDC/Federal support to SLTT governments can be brought to bear during the initial response to contain the first U. S. cases. However, with a severe influenza pandemic, existing surge capacity will not be sufficient and will strain or overwhelm SLTT capabilities. As a result, many SLTT organizations may see significant mortality and potential medical capacity limitations, especially staffed hospital beds. This shortfall in hospital-level care may result in the following:

- 1) Levels of care may need to be adjusted in order to treat as many patients as possible.
- 2) Home care services may become necessary as an effective means of providing care to numerous affected patients.
- 3) Community-based, non-pharmaceutical interventions could be the key for successful outcomes when considering an influenza pandemic.

These interventions may delay disease transmission and outbreak peak by employing a variety of case, population, and personal-based intervention strategies. Refer to Appendix 3, (Community Intervention), Annex F. These measures could assist in decreasing the peak burden on the healthcare infrastructure and diminish the overall numbers of cases. However, these actions will most likely significantly increase absenteeism throughout the workforce.





SLTT organizations, in collaboration with CCID, will plan and prepare to implement these measures immediately. Modeling has shown that sustaining these actions for long periods of time (length of time depends on virulence of the virus) are crucial to success.

CDC will respond with non-medical support by providing financial assistance (see details in Pandemic Influenza Guidance Supplement to the 2006 Public Health Emergency Preparedness Cooperative Agreement Phase II, dated July 10, 2006) and information technology resources and expertise to build readiness and situational awareness for influenza pandemic among SLTT partners. CDC will also provide technical assistance and guidance during a national influenza pandemic response. For example, CDC will assist SLTT partners in coordinating their surveillance, laboratory, epidemiology, risk communications, case management, contact management, pharmaceutical and non-pharmaceutical countermeasure administration, and adverse events tracking activities to directly reduce disease burden while maximizing SLTT and national situational awareness to guarantee optimal decision making.

b. Tasks to Supporting Organizations.

1) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

a) COTPER:

- (1) Coordinate CDC's SLTT preparedness efforts by developing checklists for SLTT use and assisting with plan development through financial assistance and guidance.
- (2) Provide guidance and instructional materials to support a process by which SLTT officials might improve their efforts to reach all populations, including racial or ethnic minorities and other special populations, in day-to-day communication and during crisis or emergency situations. Refer to Public Health Workbook to Define, Locate, and Reach Special, Vulnerable, and At-Risk Populations in an Emergency (Draft) at <http://www.bt.cdc.gov/workbook/>.
- (3) Collaborate with CDC's OMHD and CAMICC, HHS/OS, OMH, State offices of minority health, and Tribal boards of health to develop and exercise health strategies, policies, goals, and programs to mitigate the adverse consequences of





an influenza pandemic in disadvantaged communities defined by race/ethnicity, gender, socioeconomic status, geography, disability status, and other social determinates of health.

- (4) Provide technical assistance to SLTT public health departments regarding pandemic influenza tabletop exercises and encourage participation of all key stakeholders.
- (5) Help determine the national medical countermeasure requirements to ensure the sustained functioning of medical, emergency response, and other front-line organizations.
- (6) Encourage SLTT governments to take advantage of Federally-subsidized antiviral purchasing arrangements.
- (7) Encourage SLTT governments to apply for all grants providing funding for influenza pandemic planning.

b) OSEP:

Encourage SLTT entities to ensure planning partners and stakeholders adequately address law enforcement and public safety preparedness for activities arising from the impacts of an influenza pandemic.

2) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)

c) COTPER:

Establish and publish procedures for SLTTs to obtain antiviral drugs and vaccines.

d) CCID:

- (1) Ensure that SLTT partners have sufficient public health surveillance capacity to detect early cases and track the progression of influenza pandemic.
- (2) Ensure that LRN laboratories have sufficient training and materials (to include reagents) to confirm initial cases of pandemic influenza at SLTT levels.
- (3) Ensure that SLTT jurisdictions containing U. S. ports of entry are prepared to assist with treatment, transport, and sheltering of ill/exposed travelers entering the United States from affected areas.





- (4) Advise SLTT partners on pertinent information to collect during initial case/cluster investigation of human cases.

e) JIC:

Continue to coordinate development and delivery of risk communication messages.

f) CCEHIP:

- (5) Develop and provide risk communication, community involvement and health education/promotion support for diverse populations and develop provisions for vulnerable and difficult to access populations.
- (6) Assist in the collection, analysis and dissemination of information and conduct any general environmental or public health data analysis.

g) CoCHP:

Assist in the identification and execution of strategies to mitigate consequences of absenteeism and social distancing measures.

h) OMHD:

In concert with SLTT agencies, monitor pandemic response efforts in special, vulnerable, and at-risk populations, and execute strategies to remove barriers to response or mitigate stigmatization of population groups should any of these conditions develop.

i) OSEP:

Provide classified disease intelligence to support CDC's domestic influenza pandemic response.

j) CCHIS:

- (1) In coordination with CCID, coordinate activities to strengthen national surveillance systems with SLTT partners to ensure early detection of pandemic influenza in U. S. communities and track its course during multiple waves of a pandemic.
- (2) In coordination with CCID/COTPER, develop/acquire information systems that support access to real-time information about location, chain of custody, and





distribution channels of vaccines, antiviral drugs, and other tangible countermeasures from the manufacturer to the consumer.

- (3) Ensure systems are available at SLTT to support patient-level information that is generated at the point of administration or distribution of pharmaceutical countermeasures.
- (4) Ensure that point of service information can be collected and used for several purposes including call backs for second doses of vaccine, general countermeasure utilization assessments, and linkage to vaccine or antiviral adverse events.

3) Pandemic Period: (WHO Phase 6; USG Stages 3-6)

a) OSEP:

Incorporate threat, resource utilization, and intervention implementation information from SLTT partners throughout the country to maintain daily situational awareness for CDC.

b) COTPER:

Deploy SNS assets to assist SLTT authorities, on order, as directed by HHS/OS.

c) CCHIS:

In partnership with SLTT, coordinate the development and distribution of risk communication messages.

d) CCEHIP:

In coordination with SLTT, provide guidance on psychosocial support for diverse populations and develop provisions for vulnerable and difficult to access populations.

e) CoCHP:

In coordination with SLTT, execute strategies to mitigate consequences of absenteeism and social distancing measures.

c. Recommendations and Requests for SLTT Organizations.

All local jurisdictions should be equipped, trained, exercised, and ready to employ:

- 1) Risk communication plans.





- 2) Surveillance systems for early detection and ongoing situational awareness.
- 3) Laboratory systems for rapid diagnosis and case confirmation.
- 4) Case management techniques to isolate and treat infected persons.
- 5) Contact management techniques to quarantine and prophylaxis contacts.
- 6) Non-pharmaceutical interventions that are effective in slowing or stopping chains of transmission.
- 7) Mass distribution of antiviral drugs to priority groups.
- 8) Mass administration of pre-pandemic and pandemic vaccines to priority groups.
- 9) Surveillance systems to monitor adverse events associated with antiviral drugs, pre-pandemic vaccine, or pandemic vaccine.
- 10) Combinations of case-based, community-based, and personal-based interventions in a coordinated containment effort to stop or delay early chains of transmission in communities. Refer to Appendix 3 (Community Intervention), Annex F.
- 11) Grantees should fulfill responsibilities described in CDC Cooperative Agreements for Public Health Emergency Preparedness and Bioterrorism Preparedness.

d. Coordinating Instructions.

- 1) "A Guide for Preparedness," Version 10 – Draft provides guidance for preparation for the receipt, distribution, and dispensing of SNS assets. To request a current copy of the "Receiving, Distributing and Dispensing National Stockpile Assets, A Guide for Preparedness" email the CDC Division of Strategic National Stockpile, Program Preparedness Branch at SNS_PPB@cdc.gov.
- 2) An extremely useful preparedness checklist for SLTT can be found at: <http://www.pandemicflu.gov/plan/statelocalchecklist.html>
- 3) Cooperative Agreement Guidance for Public Health Emergency Preparedness:
The purpose of this program is to upgrade and integrate SLTT public health jurisdictions' preparedness for, and response to, terrorism and other public health emergencies with Federal and SLTT governments, the private sector, and Non-Governmental Organizations (NGOs). These emergency preparedness and response efforts are intended to support the National





Response Plan (NRP) and the National Incident Management System (NIMS). A web site dedicated to cooperative agreements can be found at:

<http://www.bt.cdc.gov/planning/guidance05/#guidance>.

4. SUPPORT SERVICES

Refer to the Base OPLAN and Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

Refer to the Base OPLAN. and Annex K (Information Management).





ANNEX H (PARTNERSHIPS AND STRATEGIC ALLIANCES)

1. SITUATION

- a. The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence).
- b. Mission and Intent of Higher and Supporting Organizations: Refer to Base OPLAN.
- c. Environment: Refer to Annex B (Disease Intelligence).

2. MISSION.

To establish and maintain liaison between CDC and external partners (business, public health, education, healthcare, Federal, faith-based, and community-based) to protect and improve health during an influenza pandemic.

3. EXECUTION

Concept of Operations.

CCHIS/NCHM/Division of Partnerships and Strategic Alliances (DPSA) is responsible to identify, establish and maintain critical cross-CDC external collaborative partnerships and strategic alliances with national organizations and important public, private, and nonprofit-sector groups to strengthen and enhance the reach of essential public health services and health promotion information. CDC partnerships and strategic alliances contribute to effective prevention and disease control, public health research, and strategic communication activities. Partners include:

- Public health associations
- State and local public health agencies
- Federal, state, and local law enforcement agencies and first responders, such as firefighters and rescue workers
- Practicing health professionals, including physicians, dentists, nurses, and veterinarians.
- Schools and universities
- Faith-based groups
- Community, professional, and philanthropic organizations
- Nonprofit and voluntary organizations





- Businesses and labor unions
- International health organizations

a. Tasks to Supporting Organizations.**1) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)****CCHIS:**

- a) Arrange for CDC-INFO to triage messages received from partners including those from private companies, and engage the Partner's Desk in the event a call is received from businesses at the executive level.
- b) Assist in the development of the Public Health Information Rapid Exchange (PHIRE) system as a push communication method to reach out to Partners during an event.
- c) In coordination with the JIC, confer with dedicated Partner SME to clear urgent and time sensitive materials for distribution to partners.
- d) Provide mechanism to support continued partnership identification and management (See Appendix 2 (Expedited Clearance Procedures for Avian/Pandemic Influenza Materials) to Annex J (Crisis Communication).

2) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)**NCHM:**

Triage CDC-INFO messages from Partners including private companies, and engage the Partner's Desk in the event a call is received from businesses at the executive level. Refer to Appendix 2 (Expedited Clearance Procedures for Avian/Pandemic Influenza Materials) to Annex J.

3) Pandemic Period: (WHO Phase 6; USG Stages 3-6)**a) COTPER:**

Provide web seminar support.

b) NCHM:

- (1) Triage CDC-INFO messages /from Partners including private companies, and engage the Partner's Desk in the event a call is received from businesses at the executive level.





- (2) Follow the JIC expedited clearance process to clear urgent materials and messages that are needed by partners on a time sensitive basis (See Appendix 2 (Expedited Clearance Procedures for Avian/Pandemic Influenza Materials) to Annex J (Crisis Communication)).

b. Coordinating Instructions.

Campaign materials and the distribution thereof will be coordinated with the JIC prior to release.

4. SUPPORT SERVICES

Refer to Base OPLAN and Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

Influenza pandemic preparedness and response require extensive collaboration and communication among CDC, public health organizations, business, education, healthcare, faith-based and community organizations, and other agencies at every level of government. Collaboration and communication have been significantly enhanced with CDC's website, which is focused on partnerships and strategic alliances. This website covers a broad array of topics for public health officials, businesses, and other public entities. This information can be found at <http://www.pandemicflu.gov/>, <http://www.cdc.gov/partners> and <http://www.cdc.gov/business>. The PHIRE system and other communication pathways, such as HAN, will be used to push urgent information to external partners.





ANNEX I (SUPPORT SERVICES)

1. SITUATION

- a. The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence).
- b. Mission and Intent of Higher and Supporting Organizations: Refer to Base OPLAN.
- c. Environment: Refer to Annex B (Disease Intelligence).

2. MISSION.

Provide support services to all CDC organizations, local and deployed, in order to ensure proper logistic support is provided to the complex CDC mission..

3. EXECUTION

a. Concept of Operations.

- 1) An influenza pandemic response will require a high level of preparation, anticipation, flexibility, and coordination across the entire spectrum of support services functions. Critical support services that will be provided include finance; procurement; deployment; personnel, and transportation.
- 2) When the Director, CDC directs the agency to shift from Alert to Response Mode, the Logistics and Finance/Administration Sections of the CDC Incident Management Structure are responsible for providing all event related logistics, finance, and procurement support. During normal operations and during Watch and Alert Modes, this responsibility resides with the various Coordinating Offices and Centers (CO/CC). The Logistics Support Team (LST) in the Division of Emergency Operations (DEO) will provide assistance to the CO/CCs as required and/or directed by the CDC Leadership during these phases.

b. Tasks to Subordinate Organizations.

- 1) Refer to Standing Operating Procedure (SOP) at http://eocportal/deployment_welcome_1.asp (DEOC folder / Deployment Information / Standard Operating Procedures / Combo SOP) for detailed information regarding procedures for tasks for CDC organizations and personnel.





2) Material

a) Medical Supply

(1) Non-Stafford Act Requests:

The Strategic National Stockpile (SNS) is responsible for storing, maintaining, and distributing medical assets including antiviral medications from the federal repository. State requests to access this stockpile must be processed through the CDC Director's Emergency Operations Center (DEOC). SNS will track the costs incurred associated with SNS activities and provide input to FMO for consolidation into financial reports associated with event response. If a state determines there is a requirement for medical supplies that can not be met through other means, they should contact the DEOC at 770-488-7100 to place an order.

(2) Stafford Act Requests:

If the President declares a federal disaster, and the provisions of the Stafford Act have been implemented, requests for federal support must be processed as outlined in the National Response Plan. Specifically, the state must process the requests through FEMA as part of the mission assignment process.

b) Non-Medical Supply

(1) Deployment Equipment:

- (a) A wide array of equipment and supplies is available for CDC responders. Available equipment includes IT equipment, cellular and satellite telephones, cameras, thumb drives, PDAs and survival equipment. Depending on the nature and location of the response, any combination of equipment can be issued. This includes Personal Protective Equipment (PPE).
- (b) During Watch and Alert Modes, CDC deployers should contact the DEOC at 770-488-7100 to arrange for deployment equipment. When the DEOC is active, requests for equipment should be processed through the Support Branch Director.





- (c) Each person that receives government furnished equipment is personally responsible to ensure it is secured and properly maintained while in their possession. When issued, the person receiving the equipment will be required to sign a CDC 0.993, Property Action Request, which documents this personal responsibility. After the redeployment, the equipment must be returned to the DEOC so it can be issued to other deploying CDC personnel. If the equipment is lost, damaged, or destroyed, an investigation to determine negligence will be initiated. If neglect is determined, the person responsible will be held pecuniarily liable for the loss.

(2) Procurement of mission direct supplies, equipment, and services

- (a) Request procedures from the field. When a procurement requirement arises in the field, the Incident Support Team (IST) representative in the field should be contacted directly. The IST representative will meet the requirement by procuring the items in the local area if available. If the IST member cannot meet the requirement locally, the representative will pass the requirement to the Logistics Support Team Procurement Section.
- (b) Section for procurement and delivery. If there is no IST representative in the field, the requirement should be communicated to the Logistics Section in the DEOC for procurement. A CDC form 1350 or other approved federal form will be used. If there is a Federal Contracting Officer (FCO) deployed, the IST will work in tandem with the FCO for procuring items in the local area if available.
- (c) Request procedures from the DEOC. When a procurement requirement arises from staff working in the DEOC, the Logistics Section should be contacted directly with the requirement along with the completed CDC form 1350 or other designated logistics requisition request form. The





section will coordinate the requirement and ensure it gets purchased in the most expeditious manner consistent with the requirement.

- (d) The Information Technology Support Office (ITSO) must grant approval prior to any information technology equipment purchases or leases.
- (e) During an emergency event or incident, a waiver from the current strategic sourcing guidance may be granted by HHS due to the urgency of the emergency supply requirement. Additionally, in accordance with FAR Part 6.302, the contracting officer may determine that processing a Justification for Other Than Full and Open Competition (JOFOC) may be in the government's best interest.
- (f) Funding of all procurement actions will be done in accordance with the Phase of response the LST is supporting. CAN information will be coordinated with the Finance Team supporting the LST during the event.

3) Services

a) **Deployment Preparation and Support.**

Preparation for both domestic and international deployments is the responsibility of the individual person. During Watch and Alert Modes, the Logistics Support Team in the DEO will provide assistance with deployments as required by the CO/CC. During Response Mode, all deployments will be coordinated through the Deployment Coordination Unit and the Logistics Section in the DEOC. The referenced checklist(s) in the most current DEO Deployment Guide must be completed before travel can commence. The Deployment Guide is updated regularly and is found under the deployment information tab on the EOCPORTAL. In addition the guide is sent to each deployer by a member of the Logistics Section during pending deployments. It is the responsibility of the individual traveler to ensure all items have been accomplished.

b) **World Health Organization (WHO) Short Term Consultant.**

When responding as part of a WHO deployment, it is likely that the employee will be required to become a WHO Short Term Consultant. In order to become a WHO Short





Term Consultant, specific procedures must be followed and forms must be completed / provided and turned into the deployment coordinator prior to departure. (see details in the Standing Operating Procedure at http://eocportal/deployment_welcome_1.asp DEOC folder / Deployment Information / Standard Operating Procedures / Combo SOP) for detailed information. The deployment coordinator will fax the information to WHO headquarters for approval. Once approved by WHO, the deployment can proceed.

c) Deployment of Non-Federal Employees (Contractors)

Contractors can be deployed to support CDC operations, as long as their contract permits deployment. However, their deployment is handled in a different manner from federal employees. As a general rule, CDC is prohibited from sending contractors and other non-federal employees on federal travel orders. It is the responsibility of the contractor to work with their parent company to coordinate their travel. All efforts should be made to coordinate with the deployment coordinators in the DEOC to link the contractor travel with the rest of the team.

- (1) Upon redeployment, contractors should file their vouchers with their parent company as outlined in their contract.
- (2) Specific instructions on how the parent company files for reimbursement will be provided by PGO on an event by event basis.
- (3) Additional deployment information can be found on the DEOC intranet deployment website on the CDC DEOC Portal – http://eocportal/deployment_welcome_1.asp

4) Emergency Travel Support

a) Watch and Alert Modes:

The Emergency Travel Support Team in the DEO will provide both domestic and international travel assistance to CO/CCs as required.

b) Response Mode:

All travel arrangements will be coordinated through the Deployment Coordination Unit to the Emergency Travel Support Unit in the DEOC. Travel orders and travel





coordination will be processed by DEO Emergency Travel Support Team/Emergency Travel Support unit during small to medium sized responses. The size of the event is subjective and will be determined based on staff availability, numbers and timeframes of personnel deploying, etc. When the response moves to a medium scale, other administrative staff in the DEO and the Coordinating Office for Terrorism Preparedness and Emergency Response's (COTPER) Division of Business Services (DBS) will be assigned to assist the Emergency Travel Support Team. If it continues to escalate, volunteer travel staff from across CDC will be called upon to assist with processing travel orders. The travel order process will include orders; reservations – both hotel and rental car if required; itinerary; coordination with COGH on NFT, Cable and VISA/Passport (for foreign travel); travel expense worksheet; and, voucher processing tips.

c) VOCO Travel.

Under very specific instances, CDC responders can travel without an approved travel order. However, the travel must still be verbally approved by the travel approving official that is responsible for approving all response related travel. This is usually the Logistics Section Chief in the DEOC.

d) Travel vouchers.

Travel Vouchers will be processed by the Emergency Travel Support Team during small to medium scale events. When and if, the event moves to a larger scale, the Travel Support Team will call upon other administrative staff within DEO and DBS. However, if it continues to escalate, volunteers from across CDC will be called upon to assist with the processing of travel vouchers. The voucher section will be led by an FMO representative who is knowledgeable in this area. The FMO representative will be able to provide first-hand knowledge that will allow for accurate and timely voucher preparation. See the DEO Deployment Guide for Emergency Travel Procedures and Voucher Processing Tips and Procedures.





e) **Additional travel information.**

Additional information can be found on the DEOC intranet deployment website on the CDC DEOC Portal – http://eocportal/deployment_welcome_1.asp

5) Transportation

- a) The Transportation Section/Unit coordinates the movement of personnel, specimens, supplies, and equipment as necessary to support the overall response. Transportation methods include the CDC aircraft, commercial freight forwarders, commercial freight carriers, commercial airlines, and other Federal agencies. During Watch and Alert Modes, requests for transportation support should be processed through the DEOC to the Transportation Officer in the LST. During Response Mode, requests for transportation support should be processed through the Transportation Unit in the DEOC.
- b) CDC has an open contract with an air charter company that provides an aircraft to CDC for emergency situations to transport specimens and personnel. This contract enables CDC to respond rapidly to domestic and international events with a response time of four hours for domestic trips and six hours for international trips. CDC's aircraft contractor has clearance to land at any U.S. or NATO military installation around the world. If there are parts of the United States or other parts of the world that are quarantined or where commercial airline service is restricted due to a public health event, this military clearance will enable CDC to land near the impacted area to transport responders and retrieve samples.
- c) Specimen transport and personnel deployments are situations where the CDC aircraft may be used for emergency situations. Typically, the directive to use the aircraft in emergency situations comes from CDC's Chief Operating Officer, the COTPER Director, or their designees.
- d) All request for use of the aircraft start with notification from the requestor to the DEOC. The requestor must outline the details of the requirement so the approval process can commence. Detailed information can be found in the Support Services Standing Operating Procedure (SOP) at http://eocportal/deployment_welcome_1.asp.





6) Field Support

Should less than the required number of CDC personnel deployed to a single area, or if local infrastructure has been diminished to the point that CDC response teams need support, tactical logistical support teams will supplement the need. to accomplish their mission. For international deployments the IST may deploy to and fill the role as an administrative support officer, logistician or communications specialist. For domestic deployments the IST lead works with the CDC Senior Management Official (SMO) or the designated team leader if no SMO is identified. Detailed IST field logistics activities can be found in the Standing Operating Procedure (SOP) at http://eocportal/deployment_welcome_1.asp.

7) Medical Evacuation

a) Non-infectious patient.

In general, patients who develop a medical condition while deployed would be taken to the nearest source of appropriate medical care. For international deployments, the Office of Global Health will coordinate medical evacuation of non infections patients. OHS will assist the DEOC with any medical, health or safety issues related to these deployments

b) Known or suspected infectious or contagious patient.

Standard medical evacuation may not be an option if a worker has a known or suspected infectious condition that has few if any countermeasures available, has a high risk of transmissibility, or otherwise is of high consequence. In certain cases, suspected infection with highly pathogenic avian influenza could trigger the need for medical evacuation. Specialized evacuation procedures are being developed to intervene in such situations and are paramount if avian influenza in humans has not yet occurred in the US. It is critical that deployed team members take every precaution to protect themselves with the appropriate PPE to avoid contracting a highly infectious disease. See the DEO Deployment Guide for the specific flow diagram and process related to the evacuation of patients with suspected exposure or infection.





8) Medical Support

- a) There is significant potential for CDC employees and other workers to experience personal illness and/or death during pandemic conditions. Illness and/or death could result from work-related activities, as in the deployed/field setting, or from community or other contact exposure.
- b) CDC workers who develop any medical condition while on deployment during an event, whether related to the suspected event causative agent (i.e., pandemic influenza) or not, should immediately notify the DEOC. The CDC Office of Health and Safety will assist with guidance, triage, referral, evacuation if feasible, and other related services as necessary. Workers who develop symptoms of illness while working within CDC facilities will be instructed to leave the workplace. They will be assessed at an onsite Occupational Health Clinic, if available and operational. The Clinic personnel will evaluate, treat as resources permit, and triage and transfer to the appropriate level of community medical care as quickly as possible. Ongoing medical care for persons with established illness will not be available in the CDC Occupational Health Clinics.
- c) Planning for the appropriate handling of human remains after death due to an event causative agent should take into account the location of the death, the capacity of the local infrastructure at the time of the death, and any guidance of local law enforcement and public health officials regarding deaths within their jurisdictions. Additionally, the wishes of the victim's family should be taken into consideration if at all possible. It is not anticipated that permanent CDC facilities will open, house, or operate internal mortuary services separate from those serving the local public in the areas where CDC permanent facilities are located.

9) Communications

a) Individual Communications.

The primary means of individual communications will be via land line telephones. These should be used to the maximum extent possible during an event. If required, Government phone cards can be provided for long distance calling. If dialing direct to CDC is not an





option, and there is no government phone card available, the DEOC can be reached using 1.866.232.0911. The DEOC can then patch the caller through to anyone at CDC. This number is for domestic calls only.

b) Domestic Deployment.

All domestic deployers will be provided a NEXTEL cell phone from the DEOC prior to deployment. This phone will be for official purposes only. Deployers are highly encouraged to purchase prepaid phone cards to make personal calls during their deployment. Prepaid phone cards alleviate large non reimbursable bills experienced during the deployment.

c) International Deployment.

Before deploying anyone into another country, a determination will be made if the standard DEOC issued international cell phones will function properly in that country. If a location does not support the phones that are normally provided by the DEOC for international travel, arrangements will be made to either 1) procure equipment before departure that will function in that location or 2) authorize on the travel order, the procurement of a local cell phone upon arrival in country or 3) purchase a local sim card and place into the provided international cell phone.

d) Governmental Emergency Telecommunication Service cards (GETS).

GETS cards have been issued to all key staff members to ensure they have land line priority in case the telephone network gets congested with increased call volumes. Each deployed team leader will be provided with a GETS card upon deployment to ensure priority service.

e) The National Security Emergency Preparedness (NSEP)

Telecommunications Service Priority (TSP) System has been issued for the Director's Emergency Operations Center. This is a service that provides the regulatory, administrative, and operational framework for the priority installation and/or restoration of NSEP telecommunications services.





f) Other Voice Communications.

If required, other communications systems are available to support the communications needs of deployed teams/individuals. These systems include satellite telephones, High Frequency (HF) radios, hand-held radios for intra-team communications, and INMARSAT satellite systems.

g) The National Public Health Radio Network.

The National Public Health Radio Network (NPHRN) is a High Frequency (HF) radio network that allows the CDC to communicate into and out of impacted areas. In addition, NPHRN provides a communication channel for deployed staff, state and local Health Departments, as well as other federal agencies when other means of communication are unavailable or restricted/limited. The NPHRN is managed by the CDC. State and local requests for frequencies and call signs should be processed through the DEOC.

h) Domestic Event Network:

The DEN is a 24/7 interagency unclassified telephonic conference dedicated to real-time coordination of NAS Security. Information is shared via the DEN so that agencies from different backgrounds can come together jointly to analyze an incident and plan how to manage it. This system will also allow CDC quarantine stations to be on line to maximize any coordination effort.

10) Finance

a) General.

The Financial Management Office (FMO) is responsible for support to the CO/CCs in the management of influenza pandemic funds internally and any funding provided by outside sources such as the U.S. Department of Health and Human Services, the Federal Emergency Management Agency, etc.

b) Distribution of Funds.

FMO will allocate Influenza pandemic funds based on the priorities established by the PANFLU TF in coordination with CDC's Senior Executive Leadership. Each CO/CC that receives these funds is responsible for their management. Each FMO budget analyst is





responsible for day to day execution of all funds under their respective CO/CCs purview. The FMO will provide financial policy support and help guide all procurement decisions so that they are made in accordance with all federal financial management practices.

c) Support during Watch and Alert Modes.

All deployments during these modes will be funded with dollars managed by the specific CO/CC. The exception to this rule is if another organization such as the World Health Organization (WHO) provides the funding.

d) Travel and Deployment Assistance.

If travel and deployment assistance is provided by the Logistics Support Team (LST) in the DEO, the appropriate CC/CO CAN must be provided at the time assistance is requested. Vouchers for this travel will be processed through the office that processed the original travel.

e) Supplies and Equipment.

Requirements for supplies and equipment during these phases will be processed in accordance with the normal procurement procedures. Funds under the respective CO/CCs purview will be used to support these activities, and approval will be routed through the assigned FMO Budget Analyst and the CC/CO CMO, as appropriate. Support during Response Mode.

When the CDC Director decides to go from Alert mode to Response mode and the Stafford Act is declared, FMO will provide a CAN(s) for centralized management in accordance with the FEMA Mission Assignment Process.

f) Travel Processing.

All event related deployments will be processed through the LST and will be funded centrally using the CAN(s) for the specific FEMA Mission Assignment being supported.

g) Supplies and Equipment

All event related purchases of supplies and equipment will be processed through the Finance and Procurement Section and will be funded centrally using CAN(s) for the specific FEMA Mission Assignment being supported..



**h) Financial Assistance.**

FMO will staff the DEOC with trained staff capable of responding quickly and accurately on financial matters. FMO will ensure staff is being trained in Incident Command Structure and emergency finance requirements

11) Personnel

During Response Mode, the Atlanta Human Resources Office (AHRC) is responsible for coordinating with the Office of Human Resources, HHS and the Chief Operating Officer (COO), CDC to ensure critical needs are met through a variety of human resources flexibilities and resources. AHRC will employ human resources (HR) flexibilities in accordance with delegations and instructions issued by the Office of Personnel Management. AHRC will provide information, advisory services, and consultation to employees and managers on HR flexibilities and resources. AHRC will provide up-to-date emergency information on the Intranet at <http://intranet.cdc.gov/hr/index.html> and ensure information is available for posting to the Internet at www.cdc.gov. Additionally, AHRC will provide resources to man the HR customer service lines.

- a)** AHRC will ensure an HR representative (and back-up) is available to man the Personnel Policy Unit in the Finance and Procurement Section and that these representatives are accessible and dedicated to responding to inquiries and questions received from the Director's Emergency Operations Center.
- b)** AHRC will establish two centralized HR teams specifically dedicated to addressing emergency staffing needs in collaboration with the DEOC and counseling on, responding to, and preparing claims for workers' compensation, benefits, life insurance, etc.

c. Coordinating Instructions.

- 1)** Plan and prepare for disruptions in normal supply chain support as a result of pandemic illness and disruptions across the economic and transportation sectors.





4. SUPPORT SERVICES

Refer to Base OPLAN paragraph 4, this annex (Annex I) and the Combo Standard Operating Procedures at http://eocportal/deployment_welcome_1.asp (DEOC folder / Deployment Information / Standard Operating Procedures / Combo SOP).

5. MANAGEMENT AND COMMUNICATIONS

Refer to Annex K (Information Management).





ANNEX J (CRISIS COMMUNICATION)

1. SITUATION

- a.** The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence).
- b.** Mission and Intent of Higher and Supporting Organizations: Refer to Base OPLAN.
- c.** Environment: Refer to Annex B (Disease Intelligence).
- d.** Assumption: E-mail servers will remain operational 24/7/365

2. MISSION.

To ensure timely, accurate, consistent, and reliable influenza pandemic communication to all audiences that is scientifically based and within policy guidance provided by HHS/ASPA.

3. EXECUTION

a. Concept of Operations.

- 1)** HHS/ASPA serves as the overall lead for influenza pandemic communications at the Federal level and provides appropriate coordination between CDC and other Federal agencies.
- 2)** The Emergency Communications System (ECS) Director or designee serves as the JIC lead. During an emergency event, ECS is the designated lead system for all CDC communication response activities. Once activated, ECS will function from the Joint Information Center (JIC), which serves as the central point for coordination and management of CDC communication activities related to the emergency event.
- 3)** Planning, coordinating, and directing CDC emergency communications activities rest with the JIC lead.
- 4)** The Director of the National Center for Health Marketing (NCHM) provides oversight and support to the JIC lead. The Director of NCHM will ensure that the JIC has the capacity to address issues that may arise during the event.





b. Tasks to Supporting Units.

1) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

- a) The CDC's influenza pandemic preparedness communication efforts are overseen by leaders in the National Center for Health Marketing (NCHM), the Office of Enterprise Communication (OEC), and the Influenza Coordination Unit (ICU).
- b) ECS teams and ICU participate with other units in influenza pandemic response training and exercises.

2) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)

- a) ECS and ICU teams work collaboratively and with other communication leadership during emergency periods and will provide surge capacity as necessary.
- b) The ECS activates and functions out of the JIC to coordinate all public health communication activities related to the pandemic.

3) Pandemic Period: (WHO Phase 6; USG Stages 3-6)

ECS team members as well as additional communication staff from other CC/COs provide surge personnel in support of JIC activities. Orientation will be provided to new communication staff joining JIC to ensure continuity of communications activities during the response.

c. Recommendations and Requests for SLTT Organizations.

SLTT public health agencies are encouraged to incorporate science-based messages from HHS/ASPA and CDC in their risk communication about pandemic influenza to ensure consistency of public health messages.

d. Coordinating Instructions.

- 1) Close coordination will be maintained at all levels with HHS/ASPA, other Federal, SLTT agencies and international organizations.
- 2) Emergency health communication products and public health messages produced during the execution of this plan will be coordinated by ECS leadership with the appropriate SME input and clearance prior to public release.





- 3) The JIC lead will coordinate surge capacity requirements with Associate Directors of Communication Science (ADCS) and Emergency Coordinators within each CC/CO/NIOSH and the DEOC.

4. SUPPORT SERVICES

Refer to Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

a. Control.

- 1) All personnel temporarily or permanently assigned to operate within the JIC will report directly to JIC leadership, regardless of their “home” operating unit. During an emergency the JIC has the primary CDC responsibility to provide accurate, timely, and coordinated information during an emergency to the media and the public.
- 2) JIC de-activation is tied to DEOC disengagement, with a lag time of a week or more as existing projects are completed and long-term/recovery taskings transition back to the appropriate Centers.

b. Communications.

- 1) Reports required during this operation will be made in accordance with the CDC Director, IMS Processes, HHS/ASPA, or other official mandates.
- 2) The JIC lead will provide after-action reports to HHS/ASPA and the CDC/DEOC on communication activities upon deactivation of the JIC.

APPENDIXES:

1. Personnel Requirements/Responsibilities for Joint Information Center.
2. Expedited Approval Process for Avian/Pandemic Influenza Materials.





APPENDIX 1 (PERSONNEL REQUIREMENTS/RESPONSIBILITIES FOR JOINT INFORMATION CENTER) TO ANNEX J

1. CONCEPT OF OPERATIONS

The current team structure for the ECS is detailed below. Upon activation, the ECS will occupy the JIC in the DEOC. The JIC lead is a member of the incident management executive staff while activated.

2. TEAM FUNCTIONS.

a. Leadership:

Upon recognition of a public health emergency, such as an influenza pandemic, or at the discretion of the CDC Director, the ECS becomes activated. It serves as the primary point of coordination and leadership for CDC's communication response related to the event.. To facilitate the transition of influenza pandemic communication from the inter-pandemic period to ECS activation, the ECS Director coordinates with ICU and other communication leadership to analyze the specific event and to determine the most appropriate communication strategy and needs.

During activation for an influenza pandemic, ECS teams, as well as additional communication staff across the CC/COs, provide response surge capacity and staff the JIC in the DEOC. The JIC is the communication hub within the DEOC. Working closely with other response personnel staff, the JIC staff coordinates the assessment and identification of emergency communication needs, message development, clearance, translation, dissemination, and other relevant communication needs. As shown in the NIMS organization, a JIC is also ordinarily located in a field setting and serves as a centralized point where multiple agencies can share information and disseminate consistent messages.

The DEOC JIC serves the same purpose but not in a field setting. It ensures that CDC is able to communicate messages that are accurate, consistent, and timely through a central area in the DEOC.



**b. Leadership Team Actions.**

ECS Director works with ICU, NCHM leadership and other relevant center communication leadership to:

- 1) Develop and execute an overall strategy for communication activities based on the specific nature of the emergency.
- 2) Coordinate communication efforts with HHS/ASPA.
- 3) Convene ECS team leaders to advise them of the emergency and inform them to organize their activities and to activate their teams.
- 4) Establish a 24/7 schedule if necessary.
- 5) Attend all DEOC Director's briefings (JIC Media Team also attends).
- 6) Share information gathered from the briefings.
- 7) Lead discussions about communication needs that are identified at the briefings, as well as those identified by the various JIC teams.
- 8) Plan and lead JIC briefings.
- 9) Oversee submission of shift reports on JIC activities.
- 10) Provide immediate guidance to CC/CO and CDC leadership on communication issues and concerns.
- 11) Ensure that response and investigation teams have continuous access to communication expertise.
- 12) Quickly address emerging communication issues related to CDC's emergency response.

3. INFORMATION MANAGEMENT TEAM ACTIONS

Develop IMT DEOC staffing plan and schedules.

a. Content Development.

- 1) Work with appropriate CC/CO/NIOSH staff to coordinate core content development.
- 2) Assess repurposed material for intended use and determine when re-clearance is required.
- 3) Ensure that materials are clear and consistent.





b. Clearance and Tracking.

- 1) Facilitate efficient (timely) clearance for all documents using expedited clearance procedures established during the prevention and preparedness phase.
- 2) Track all documents submitted for clearance.
- 3) Inform leadership team of bottlenecks in the clearance process.

c. Managing Communication Products.

- 1) Maintain a log of all cleared communication materials.
- 2) Maintain a database for CDC influenza pandemic materials and messages.
- 3) Work with HHS/ASPA on development and posting of influenza pandemic messages.
- 4) Attend daily JIC briefings.
- 5) Provide team-specific data for inclusion in the Incident Action Plan (IAP) and other reports.

4. RESEARCH TEAM ACTIONS

- a. On-going domestic and international environmental scanning (newspaper, television, and internet) and reporting, providing for the early identification and assessment of pandemic issues.
- b. Systematic collection and analysis of the usage patterns of pandemic information dissemination sources (e.g., CDC INFO and websites).
- c. Establish baseline and longitudinal surveys to measure trends in the knowledge, attitudes, beliefs, and perceptions of the public and select audience segments on pandemic issues and concerns.
- d. Conduct applied communication research that leads to the development of model pandemic messages, strategies, or interventions.
- e. Conduct evaluation research to enhance the effectiveness of pandemic communication efforts.
- f. Establish a basic and applied communication research agenda to enhance the theoretical and practical underpinnings of pandemic communication.
- g. Attend JIC briefings.
- h. Provide team-specific data for publication in the IAP or other required reports.





5. GLOBAL TEAM ACTIONS

- a.** Build awareness of CDC pandemic influenza/influenza pandemic communication materials in the international community.
- b.** Provide awareness of international partner activities.
- c.** Attend JIC briefings.
- d.** Provide team-specific data for publication in the IAP or other required reports.

6. ENTERPRISE TEAM ACTIONS

- a.** Support and manage the CDC influenza pandemic Speakers Bureau.
- b.** Support and manage the internal flow of influenza pandemic information to CDC employees.
- c.** Assist Media Team when needed.
- d.** Oversee matters relating to the reputation of CDC.
- e.** Attend JIC briefings.
- f.** Provide team-specific data for publication in the IAP or other required reports.

7. COMMUNITY OUTREACH TEAM ACTIONS

- a.** Gather information from affected communities and the National Public Health Information Coalition to evaluate efforts and provide feedback to CDC leadership.
- b.** Provide input to the Information Management Team (IMT) regarding tailored communication strategies and products for target or priority audiences.
- c.** Assist IMT with development of talking points, fact sheets, and other materials based on feedback from the national public health workforce and other partners to ensure materials are based on need and targeted to specific groups and priority audiences.
- d.** Coordinate with Division of Partnerships and Strategic Alliances to implement outreach activities to community and faith based organizations, Tribal liaisons, state and local public health educators and other SLTT partners, clinicians' networks, and groups representing vulnerable and at-risk populations, including those with visual and auditory deficits





- e. Coordinate efforts with DEOC in the deployment of health communication Surge Capacity staff as requested and maintain on-going contact with deployed communication staff to identify education/communication needs in the field.
- f. Coordinate with CDC Multilingual Services to implement emergency translations, IMT, and the Web Team to post translated materials on the web.
- g. Identify gaps in education messages/health literacy needs and implement responsive measures.
- h. Ensure that education materials/messages are adapted/developed and accessible as necessary for priority audiences.
- i. Attend JIC briefings; provide team-specific updates for inclusion in the IAP and other reports.

8. CLINICIAN TEAM ACTIONS

- a. Contact CC/CO-designated clinician teams to offer assistance and explain the ECS.
- b. Provide subject matter leadership to CDC-INFO, including ongoing Q & A updates on influenza pandemic.
- c. Contact Communication Outreach Conference Calls (COCA) partners and provide them fact sheets on influenza pandemic.
- d. Conduct COCA net conferences and web casts during an event.
- e. Provide regular influenza pandemic updates to the CDC Clinician Registry.
- f. Conduct satellite broadcasts on influenza pandemic.
- g. Continually update clinician-specific web pages on influenza pandemic.
- h. Embed in the DEOC clinician teams.
- i. Hold COCA conference call(s) on influenza pandemic.
- j. Attend JIC briefings.
- k. Provide team-specific data for publication in the IAP or other required reports.





9. EPIDEMIC INFORMATION EXCHANGE (EPI-X) TEAM ACTIONS:

- a.** Expedite and assist in the exchange of accurate, trustworthy information from national, state, and local public health officials.
- b.** Provide a level 3 secure internet site for public health officials nationwide to exchange privileged or highly sensitive information, including personal identifiers, using dual user authentication and encrypted transmission of data.
- c.** Provide 24/7 editorial and epidemiologic assistance to help officials prepare and distribute urgent reports.
- d.** Assure routine or emergent notification of one, some, or all key health officials when needed by e-mail, cell phone, landline and pager.
- e.** Target reports to limit access to sensitive information to only one, some, or all public health officials who need access to the information.
- f.** Help officials respond to emerging health events, link events over time and across jurisdictions, and identify related events using an archived, searchable database.
- g.** Provide discussion features, directories of key user groups and subject-matter experts, and links to multiple resources to help users locate people and information quickly.

10. MEDIA TEAM ACTIONS

- a.** Media team lead attends all DEOC CDC Director's briefings with the JIC Lead.
- b.** Assist in the formulation of overall influenza pandemic communication plans, strategies, and messages (e.g., identifying media interests and issues, development of key message points).
- c.** Coordinate all (CDC) news media interactions involving influenza pandemic response participation with media/public affairs representatives from HHS/ASPA, and with health public information officers. As needed, coordinate media interactions with other Federal Agencies (USDA, DOI, DHS, DOS, DOE, DOT), WHO and other health ministries, corporate and business information officers, and agencies such as the Red Cross.
- d.** Provide timely (immediate) response to all news media queries.





- e. Coordinate press officer activities across Division of Media Relations, CCID, and NIOSH (and other Centers as needed). This would include public information officer field deployments
- f. Prepare and accompany CDC spokespersons to venues where media is present or expected.
- g. Coordinate the selection and training of designated media spokespersons.
- h. Acquire necessary HHS/ASPA clearances for news media interviews, releases, news conferences or other influenza pandemic products/activities as required.
- i. Schedule, organize, and orchestrate news conferences.
- j. Attend JIC briefings.
- k. Provide team-specific data for publication in the IAP or other required reports.

11. WEB TEAM ACTIONS

- a. Collaborate with HHS/ASPA on and ensure appropriate integration with <http://www.pandemicflu.gov> - the official influenza pandemic website of the U. S. Government.
- b. Provide round-the-clock staff coverage for web maintenance or posting needs during emergency periods.
- c. Design websites based on specific needs of influenza pandemic response.
- d. Maintain quality control through usability tests, e-mail inquiries, and website usage statistics.
- e. Emphasize the accessibility of electronic content by user-specific language and literacy.
- f. Define web responsibilities between HHS/ASPA and CDC on what will be posted and where during pre-event and post-event and communicate this information to external partners.
- g. Utilize the latest web technology to disseminate public health messages.
- h. Attend JIC briefings.
- i. Provide team-specific data for publication in the IAP or other required reports.





12. POLICYMAKER TEAM ACTIONS

- a.** Address inquiries from Congressional member offices, Congressional committee staff, HHS ASL office, and other policy stakeholders in concert with applicable CC/CO/NIOSH ECS.
- b.** Apprise ECS Leadership team of legislative and policy-based activities, concerns, and other interests.
- c.** Develop and maintain outreach channels to policymaker communities to provide feedback to leadership teams for use in strategic realignment, emergency management, or to shape future responses.
- d.** Submit information as available on upcoming Congressional hearings, briefings, and requests that CDC Washington, the Public Health Policy Team at FMO, and the Executive Secretariat have received.
- e.** Provide updates to the ECS network on questions and testimony given at influenza pandemic related hearings.
- f.** Generate a list of potential questions that members of Congress may ask during an influenza pandemic event.
- g.** Attend JIC briefings.
- h.** Provide team-specific data for publication in the IAP or other required reports.





APPENDIX 2 (EXPEDITED APPROVAL PROCESS FOR AVIAN/PANDEMIC INFLUENZA MATERIALS) TO ANNEX J

1. JIC IMT SERVICES

To expedite the clearance process, JIC IMT will send clearance materials to the IMS functional mailbox desks (through Documentum). The SMEs staffing the functional desks will be responsible for coordinating clearance for their functional area, including contacting their communication offices if needed.

2. OVERVIEW

In the event of activation for an influenza pandemic, the Joint Information Center (JIC), Information Management Team (IMT), is charged with coordinating the following:

- Clearance of general AI/PI communication materials and documents.
- Expedited clearance for urgent communication materials and documents.
- Assistance with content development, when needed, of general AI/PI communication materials
- Editorial assistance to ensure consistent messages
- Maintenance of a repository for AI/PI materials

a. If you need materials cleared

- 1) Email your request to IMS JIC IMT (eocjicimt@cdc.gov) with a copy to the IMS JIC Lead (eocjicleadership@cdc.gov) and IMS JIC Task Triage (eoctasktriage@cdc.gov) and include the following:
 - a) Attach the document to be cleared.
 - b) Email subject line should include “Clearance Needed” followed by the name of the document or subject.
 - c) Fill out and attach the Clearance Form (on the DEOC portal under the Clearance hyperlink). To expedite the clearance process, this form must be filled out.
- 2) IMS JIC IMT will then submit the document into Documentum for clearance.
- 3) The document will go to all relevant functional groups staffing the DEOC for simultaneous SME review with an informational copy to the JIC Policymaker Team.





- 4) The Senior Science Officer and Chief Health Officer will receive documents identified as “high-profile” or requiring SSO/CHO review after all other functional groups have reviewed and cleared the document.
- 5) DIMES will receive the final copy for OD/Policy review (DIMES will send the document on for HHS and other Federal agency review).
- 6) Upon final approval, send document to original requestor, web team, and other distribution channels as needed. The document will also be stored and available under the Clearance hyperlink.

b. If you need a document developed or edited...

- 1) Send a request to the IMS JIC Task Triage (eoctasktriage@cdc.gov) and copy the IMS JIC Lead (eocjicleadership@cdc.gov).
- 2) IMS JIC IMT will draft content and send document to appropriate functional group(s) for SME review and input.
- 3) SMEs will review document and send comments back.
- 4) Be sure to send comments to everyone on the email, including eocjicimt@cdc.gov.
- 5) IMS JIC IMT will make revisions and send revised document through clearance process described above.

c. If YOU are asked to clear a document

- 1) You may receive documents for clearance through Documentum via email (see the Documentum Reference Guides on the DEOC portal under the Clearance hyperlink for help).
- 2) The person in charge of monitoring your functional mailbox is responsible for clearing the document or sending the document to his or her group for review and for inputting those changes into Documentum. Note: Be sure to use the Track Changes feature of Microsoft Word.

d. If you need documents translated or written in low-literacy language

- 1) Send a request to the IMS JIC Task Triage (eoctasktriage@cdc.gov) and copy the IMS JIC Lead (eocjicleadership@cdc.gov).





- 2) Note: If you are submitting a document for clearance and would like the content to be translated into other languages or into low-literacy language, indicate this on the Clearance Form. IMS JIC IMT will send these requests to IMS JIC Community Health and Education Team (eocjicoet@cdc.gov) and copy the IMS JIC Lead (eocjicleadership@cdc.gov) and IMS JIC Task Triage (eoctasktriage@cdc.gov).

e. If you need to check the status of a document

- 1) Access Documentum by following the direction in the Tracking Report found on the DEOC portal under Clearance.

3. CONTACT INFORMATION FOR IMT

Location: Joint Information Center (JIC) in the DEOC, Room 3202

Main Contact Number: 404-553-7766

Email Address: eocjicimt@cdc.gov

Table 11: JIC IMT Material Clearance Coordination Do's & Don'ts

JIC IMT Coordinates Clearance for These Materials	JIC IMT Does Not Coordinate Clearance for These Materials
<ul style="list-style-type: none">• Web content• Question and answer documents• Fact sheets• Print materials (e.g., brochures, flyers, posters)• Radio and television PSAs• Pictograms• Talking points• Hotline scripts and standard responses• Press releases	<ul style="list-style-type: none">• Congressional inquiries• Controlled correspondence• MMWR articles• Technical publications, including scientific articles for publication in peer-reviewed journals and book chapters <p>Note: These items go through non-JIC clearance chains, unless otherwise directed by CDC leadership.</p>





Table 12: The Clearance Process

Send materials needing clearance to eocjicimt@cdc.gov, along with the Clearance Form. To expedite the clearance process, JIC IMT will send clearance materials to the IMS functional mailbox desks (through Documentum). The SMEs staffing the functional desks will be responsible for coordinating clearance for their functional area, including contacting their communication offices if needed.

Step 1. Appropriate desks are selected for cross-clearance, based on the topic.

Desk	Email	with cc to
FDA Liaison	eocfdalno@cdc.gov	eocleadlno@cdc.gov
DoD Liaison	eocdodlno@cdc.gov	eocleadlno@cdc.gov
EPA Liaison	eocepalno@cdc.gov	eocleadlno@cdc.gov
USDA Liaison	eocusdalno@cdc.gov	eocleadlno@cdc.gov
Partners Liaison	eocpartnerslno@cdc.gov	eocleadlno@cdc.gov
SNS Liaison	eocsnsln2@cdc.gov	eocdsnslead@cdc.gov
Epidemiology	eocepidemiology@cdc.gov	eocepisurveillance@cdc.gov ; eocepisurveillancetm@cdc.gov eoctechspecialunitldr@cdc.gov
Surveillance	eocsurveillance@cdc.gov	eocepisurveillance@cdc.gov eocepisurveillancetm@cdc.gov eoctechspecialunitldr@cdc.gov
Displaced Persons	eocdisplacedperson@cdc.gov	eocaffectedpopcaretm@cdc.gov
Mental Health	eocmentalhealth@cdc.gov	eocaffectedpopcaretm@cdc.gov
Injury/Trauma	eocinjurytrauma@cdc.gov	eocaffectedpopcaretm@cdc.gov
Quarantine	eocquarantine@cdc.gov	eocinfectdiseasetmlldr@cdc.gov
Worker Safety and Health	eocworkersafetyhealth@cdc.gov	eocenvironmental@cdc.gov
Immunizations	eocimmunization@cdc.gov	eocimmunemisctmlldr@cdc.gov
Antiviral/Antibiotics	eocantiviralantibioticcoord@cdc.gov	eocmedicalcountmeasu@cdc.gov
Regulatory Affairs	eocregulatoryaffair@cdc.gov	eocmedicalcountmeasu@cdc.gov
IC/Clinical Care	eocicclinicalcare@cdc.gov ; eocclinicalcare@cdc.gov	eocmedicalcountmeasu@cdc.gov
Healthcare Delivery	eochealthcaredeliver@cdc.gov	eocmedicalcountmeasu@cdc.gov
Laboratory		eoclaboratorytmlldr@cdc.gov

Step 2. After all other desks have reviewed the document, high-profile materials (as determined by the SSO/CHO) are sent to the Senior Science Officer and the Chief Health Officer for clearance.

Senior Science Officer	eocseniorsciofficer@cdc.gov	
Chief Health Officer	eocchiefhealthscienceofficer@cdc.gov	

Step 3. After review is complete, all documents are sent to DIMES for OD review. DIMES will send document to ASPA for HHS and other federal agency review.

Sally Toye	slc@cdc.gov	
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Table 13: IMT Clearance Form

To request clearance of messages and materials or ECS assistance in developing content, please complete this form and send it to eocjicimt@cdc.gov.

Date submitted to ECS:

Priority: [Click here to select](#)

Type of request: [Click here to select](#)

Author/Point of Contact (POC) Information

Author/POC: Phone: Email:

CIO/Group:

Name of alternate: Phone: Email:

Content Information

Title/Subject:

Reason for new or revised content:

Audience (check all that apply):

General Public ☐ Media ☐ Clinicians ☐ Health Departments ☐ Other (specify)

Document type: [Click here to select](#) If other, please specify:

Anticipated method(s) of distribution (check all that apply):

Web ☐ Presentation ☐ Internal ☐ Email ☐

Hard copy ☐ Other

Content (choose one): New ☐ Revised ☐ Both ☐

Important Note: To expedite material development and clearance, please include the source (document or URL) of any previously cleared information (e.g., information from a CDC Web site).

Clearance Information

Cleared by author's CIO? Yes ☐ No ☐

Need cross-clearance? Yes ☐ No ☐ Don't know ☐

If cross-clearance is needed, by whom?

Important Note: To expedite material development and clearance, please include the source (document or URL) of any previously cleared information (e.g., information from a CDC Web site).

Comments



DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

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ANNEX K (INFORMATION MANAGEMENT)

1. SITUATION

- a. The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence).
- b. Mission and Intent of Higher and Supporting Organizations: Refer to Base OPLAN.
- c. Environment: Refer to Annex B (Disease Intelligence).

2. MISSION.

Support CDC staff during an influenza pandemic event through real-time data exchange and information management.

3. EXECUTION

Concept of Operations:

a. CCHIS/NCPHI/ITSO

- 1) Provides augmented informatics and IT support during an influenza pandemic.
- 2) Provide standards, technical assistance, consultation, and in some instances software and database development for the collection of data from CDC partners and stakeholders
- 3) Works with partners to provide analytic tools and visualization approaches to provide information needed for decision makers throughout CDC.

b. Tasks to Supporting Organizations.

1) Inter-Pandemic Period: (WHO Phases 1-2; USG Stage 0)

a) CCHIS:

- (1) In coordination with CCID, exchange laboratory test results and test orders with SLTT laboratory data systems and other appropriate surveillance partners.
- (2) Expand laboratory/hospital reporting network (BioSense) to 350 hospitals in 42 markets by 2007.
- (3) Ensure Countermeasure and Response Administration System (CRA) is available to support local health organizations.





b) ITSO:

Ensure storage capacity exists for increased data requirements.

2) Pandemic Alert Period: (WHO Phases 3-5; USG Stages 0-2)

a) CCHIS:

- (1) Ensure use of Preparedness and Workforce Management System (PWMS) for surge requirements of staff.
- (2) Coordinate with SLTT public health departments to ensure timely data transmission using current systems.
- (3) Coordinate with CDC laboratories for timely analysis of epidemiological data.

b) ITSO:

- (1) Provide Level 2 and 3 support for traveling/remote field offices as well as quarantine stations.
- (2) Acquire, install, and support remote access terminal servers and software (CITGO).

c. Recommendations and Requests for SLTT.

Ensure information systems are compliant with Public Health Information Network (PHIN) standards.

d. Coordinating Instructions.

Implement suspect case investigation system.

4. SUPPORT SERVICES

Refer to Base OPLAN and Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

Refer to Base OPLAN.

APPENDIXES:

1. Informatics
2. Telecommunications





APPENDIX 1 (INFORMATICS) TO ANNEX K

1. GENERAL

The ability to identify, process, and comprehend critical elements of information during an evolving influenza pandemic provides the critical situational awareness necessary for effective, coordinated decision making.

2. CONCEPT OF OPERATIONS

Informatics supports an interoperable approach to the development or integration of information systems that support the activities of other functional areas while providing data for timely decision making. To achieve this situational awareness, three critical components must be tracked:

a. The Threat.

The characteristics of the circulating pandemic influenza virus; its impact on human health, and its patterns of transmission. Refer to Annex B (Disease Intelligence).

b. Resources.

The human and material resources that can be mobilized to respond, their location and utilization.

c. Interventions.

The type, location, effectiveness, and safety of intervention techniques used to mitigate the threat and achieve operational goals. Refer to Appendix 3 (Community Intervention), Annex F.

3. SYSTEMS

a. CCHIS:

- 1) Design, develop, implement, and provide ongoing operations and maintenance of the following DEOC information support systems:
 - a) Incident Management.
 - b) Preparedness and Workforce Management System (PWMS).
 - c) Call Tracking.
 - d) Outbreak Management.





- e) Notification.
 - f) Messaging.
 - g) Document Management Systems.
 - h) Public Health Databases.
 - i) Web Portals.
 - j) Telephone Recording Systems.
 - k) Bioterrorism Support Systems.
- 2) Supports Public Health Information Network (PHIN) Systems/Architecture. Critical systems include:
- a) BioSense.
 - b) Epidemic Information Exchange (EPI-X).
 - c) Health Alert Network (HAN).
 - d) Laboratory Response Network (LRN) Results Messenger.
 - e) Outbreak Management System (OMS).
 - f) Countermeasure and Response Administration System (CRA).
 - g) Analysis/visualization suite “dashboard”.

b. CCID:

Support the exchange of laboratory information between SLTT laboratories and CDC using the following systems.

- 1) Public Health Laboratory Information System (PHLIS).
 - 2) National Respiratory & Enteric Virus Surveillance System (NREVSS).
 - 3) LRN Messenger.
 - 4) Specimen Tracking and Results Reporting System/Laboratory User Network Application (STARRS/LUNA).
- c. For a list of influenza pandemic support, refer to Table 13 below:





Table 14: CDC Information Systems for Influenza Pandemic Support

Information System	Essential Element of Information	Purpose	Influenza Pandemic Role	Current Status (as of December 2006)
BioSense	Early Event Detection & Tracking.	Real-time biosurveillance/situational awareness. Provides data from hospitals/healthcare systems in 50 major metropolitan areas (goal: 350 hospitals by 12/2006), in national laboratories, and DoD/VA hospitals. BioIntelligence Center provides data analysis.	Early detection of syndromic data from multiple sources supports event detection and tracking.	Currently in 185 hospitals and various DoD/VA healthcare facilities.
Countermeasure and Response Administration System (CRA)	Resource Management & Services Delivered	State/local response tool. Aggregate and individual patient modules required. Individual or aggregate data may be kept locally, but aggregate counts are sent to CDC for centralized tracking of vaccinations given, vaccine availability, etc.	Counts sent to CDC may provide broad overview. Data entry weak link.	Currently tracks smallpox. Planned modules for aggregate population reporting and individual reporting are targeted for implementation Sep 2006. A Quarantine and Isolation module is planned but an implementation date has not been scheduled.
Epi-X	Response Coordination	Provides secure, Web-based, person-to-person specific communication about outbreaks and other acute or emerging health events among public health officials from CDC, state and local health departments and the military.	Message traffic could alert health providers to pandemic outbreaks.	





FluFinder	Resource Management	Backup to SPARx. Flu Finder dynamically presents flu vaccine availability information to all state health departments. The system allows for ordering new vaccine shipments and helps CDC and partners allocate vaccine according to locations of greatest need. Distribution shown down to the state level versus zip code level in SPARx.	Provides feedback on resource allocation at the state level to deter pandemic.	Currently off-line. Functionality exists in a reserve capacity. Two versions: A. Ordering, apportionment, and tracking. B. Vaccine Tracking only.
Health Alert Network (HAN)	Partner Communications	Provides critical precautions, response, and treatment recommendations through a national health broadcast network.	Message traffic could alert health providers to disease outbreaks in specific locales.	
Laboratory Response Network (LRN) Results Messenger	Response Coordination	Provides LRN labs the ability to share lab results securely with public health partners.	Sentinel, reference, national labs.	
Outbreak Management System (OMS)	Case Management and Contact Tracing	Suite of tools supports local case and exposure management interventions. Captures standard data; configures outbreak-specific vocabularies; performs analyses; and creates dynamic questionnaires, reports, and outbreak specific packages.	State and local use.	In use in California (EPA) Idaho Michigan Tennessee
Surveillance, Preparedness Awareness and Response	Resource Management	Part of broad CDC management effort to give public health decision-makers timely information on countermeasure	Provides feedback on resource allocation at zip code level to deter pandemic. Does not	





System (SPARx)		availability and to support the management and apportionment of commercial sector and government-owned pharmaceuticals and other countermeasures. Data acquired represents the number of doses of vaccine (or anti-virals) available at manufacturer/distributor and amount sent to providers (down to the Zip Code level).	show the spread of the disease; only resource availability/scarcity.	
Preparedness and Workforce Management System (PWMS)	Resource Management	Event response team and deployment management tool	Manage response personnel for internal and deployed teams	In production in DEOC.
WebEOC	CDC Response Coordination	Emergency management collaboration tool	Share operational and case information with HHS/OS.	In production. Hosted at SOC, HHS and used by CDC DEOC.
Public Health Laboratory Information System (PHLIS)	Virologic surveillance	A PC-based electronic reporting system for entering, editing, and analyzing data locally and for transmitting data electronically to other state or federal offices.		
CDC Alerting Service	Response Coordination	Real time emergency alerting system for message delivery by phone, e-mail, SMS, etc.	Distributing notifications to field teams.	In transition to Dialogic. Planned to interface w/ PWMS application.





APPENDIX 2 (TELECOMMUNICATIONS) TO ANNEX K

1. SITUATION

During an influenza pandemic situation, normal telecommunications systems; i.e., cell phones; land lines; radios; etc. , will most likely function properly. Some overload of telecommunications circuits is possible in areas where absenteeism is increased with high levels of influenza pandemic activity and increased teleworking, hampering the exchange of information between CDC personnel.

2. CONCEPT OF OPERATIONS

The timely exchange of information is critical to CDC operations. The following methods are available for individuals who are either deployed or absent from work to communicate with their CDC counterparts in order to meet mission needs during an influenza pandemic:

- a. Land Line Telephones. Telephones will be the primary means of individual communications and should be used to the maximum extent possible during an event. If required, government phone cards can be provided for long distance calling. If dialing direct back to CDC is not an option, and a government phone card is unavailable, the DEOC can be reached at 1-770-488-7100. The DEOC can then patch the caller through to anyone at CDC.
- b. Domestic Deployment. Domestic personnel who deploy will be provided a cell phone, if available, from the DEOC before deployment. This phone will be for official purposes only.
- c. International Deployment. Before deploying anyone abroad, a determination will be made if the standard DEOC issued international cell phones will function properly in the area of assignment. If a location does not support the phones provided by the DEOC, arrangements will be made to either, 1) procure equipment before departure that will function in that location or, 2) authorize the procurement of a local cell phone upon arrival in country.
- d. Governmental Emergency Telecommunication Service (GETS). GETS cards have been issued to all key staff members to ensure they have land line priority in case the telephone network gets congested with increased call volume. Each deployed team leader is issued a GETS card upon deployment to ensure priority service.





- e. The National Security Emergency Preparedness (NSEP). Telecommunications Service Priority (TSP) System has been installed in the Director's Emergency Operations Center. This service provides the regulatory, administrative, and operational framework for the priority installation and/or restoration of NSEP telecommunications services.
- f. Other Voice Communications. Systems are available to support the communications needs of deployed teams/individuals as required. These systems include satellite telephones; High Frequency (HF) radios; hand-held radios for intra-team communications, and International Maritime Satellite Organization (INMARSAT) satellite systems.
- g. The National Public Health Radio Network (NPHRN) is a High Frequency (HF) radio network that allows CDC to communicate into and out of impacted areas. In addition, NPHRN provides a communication channel for deployed staff, SLTT health departments, and other Federal agencies when other means are unavailable or restricted/limited. The NPHRN is managed by CDC. SLTT requests for frequencies and call signs should be processed through the DEOC.
- h. Domestic Events Network (DEN). DEN is a 24/7 interagency unclassified telephonic conference dedicated to real-time coordination of National Airspace System (NAS) security. Information is shared via the DEN so that discrete agencies can come together jointly to analyze an incident and plan how to manage it. This system will also allow CDC quarantine stations to be on line to maximize coordination efforts.
- i. CDC Information Technology on the Go (CITGO). CITGO is available to 1200+ concurrent users. CITGO is a Web-based application that CDC employees and contractors can utilize to securely access applications, data and e-mail remotely. RSA Secure ID key fobs are required for access. CITGO can be utilized from virtually any remote location, either by a dial-up modem using CDC's remote access dial-up lines or by using an Internet connected laptop or workstation. Examples of potential connections include using another organization's Internet connection such as a county or SLTT health department, international field locations, research libraries, and airport kiosks.



**ANNEX L (RECOVERY OPERATIONS)****REFERENCES:**

1. Base OPLAN.
2. Continuity of Operations Plan, Centers for Disease Control and Prevention, June 29, 2005
3. Draft Influenza Pandemic Annex to the Continuity of Operations Plan, Centers for Disease Control and Prevention, Sep 2006
4. Integrated Emergency Management Plan, Centers for Disease Control and Prevention, Version 4, April 2006

1. SITUATION

- a. An influenza pandemic attack upon the United States will likely unfold over a period of 12-18 months.
- b. Influenza pandemics usually attack in multiple waves. It can be in the same year or in successive flu seasons. The second wave usually hits 3-9 months after the first wave and can be more severe in morbidity and mortality.
- c. Each pandemic wave may last 6-8 weeks.
- d. Absentee rates of 40% can be expected at the height of the pandemic.
- e. The influenza infection rate is estimated to be 30% (90 million) of the United States population.
- f. The death rate from an influenza pandemic event in the United States is estimated to be 2% (1.8 million) of those infected, although it could be greater.
- g. Influenza vaccine may not be available to mitigate the first wave of illnesses. Vaccine may not be widely available to the general public by the second wave of illness. Non pharmaceutical interventions and the use of prophylaxis medicines will be the main lines of defense against pandemic influenza until the availability of vaccine.





2. MISSION.

To conduct facility and personnel recovery operations after each wave and after completion of the pandemic event.

3. EXECUTION

Concept of Operations:

The Centers for Disease Control and Prevention (CDC) will likely experience the same morbidity, mortality and absentee rates as the general population through the first wave of illness. Once a vaccine is developed, probably prior to the second wave of illness, key and essential CDC employees will likely be among those vaccinated with the initial batches of influenza vaccine. From the beginning of the influenza pandemic event until the availability of the influenza vaccine, perhaps 4-6 months after the identification of the strain of virus, CDC will face the same personnel and facility recovery challenges as other organizations throughout the United States. Limited recovery operations will be conducted after each pandemic wave; full recovery operations will be conducted after the end of the pandemic. CDC recovery operations will be guided by the following principles:

- a. Identify those organizational functions that are key and essential to be performed throughout the pandemic period.
- b. Assign employees and other resources to support these key and essential functions. Cross-train employees to perform one or more jobs in support of these functions. Of particular value to the organization are those employees who have recovered from the pandemic influenza – barring a change in the strain of virus, they will be immune from subsequent waves of illness.
- c. Prioritize CDC employees for pandemic influenza vaccinations based upon risk factors and criticality for mission accomplishment. These employees should also be assigned to key and essential duties during the pandemic.
- d. Identify those employees who are likely to be long term absentees – i.e., those who must be caregivers for children who are not in school due to school closings. Build recovery plans assuming their absence or ability to work from home until the pandemic ends or vaccine is available to those receiving their care.





- e. Plan on some employees having severe enough psychosocial maladies that will affect their efficiency at the job or even their ability to work. Provide counseling if resources are available.
- f. Internal recovery operations must be synchronized with recovery efforts at the Department of Health and Human Services and SLTTs. This ensures that key functions are resourced and functioning at the appropriate levels and times until the pandemic is over.
- g. Common use areas in CDC facilities should be cleaned and sanitized to kill any remaining influenza viruses.
- h. Work areas that were reconfigured to support essential influenza response operations must be returned to pre-pandemic configurations to support regular CDC operations. Return employees to their regular duties as the situation permits.
- i. Special efforts will be necessary to support employees' requests for sick leave adjustment, personal time off, etc. Special attention must be paid to any emergency rules enacted to ameliorate the unplanned time off that employees took to cope with illness or care giving.
- j. Recover from interruptions caused in the supply system (IT systems, office supplies, refuse pickup, etc.) and normalize standard procedures.
- k. Recall and reintegrate deployed CDC personnel.
- l. Update job descriptions of deceased employees and others who do not return to work. Expedite the recruitment and hiring processes to fill these vacancies.
- m. Within its own reduced capabilities during internal recovery operations, CDC will make every effort to assist SLTT health departments in their recovery.

4. SUPPORT SERVICES

Refer to Base OPLAN and Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

Refer to Annex K (Information Management)





ANNEX M (LEGAL CONSIDERATIONS)

1. SITUATION

- a. The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence).
- b. Mission and Intent of Higher and Supporting Organizations: Refer to Base OPLAN.
- c. Environment: Refer to Annex B (Disease Intelligence).

2. MISSION.

CDC will immediately detect the onset of outbreaks with pandemic potential; assist with the containment of such outbreaks; delay the introduction and transmission of pandemic viruses in the United States; and assist SLTT health authorities in their management of an influenza pandemic within the bounds of U. S. Constitutional and statutory authority.

3. EXECUTION

a. Concept of Operations.

CDC is a component agency of the Department of Health and Human Services (HHS). As such, CDC's legal authorities are generally derived from the authorities given by statute to the HHS Secretary. The HHS Secretary may, at his discretion, delegate authority under law to CDC, unless the law prohibits such delegation. Delegations allow the HHS Secretary to convey HHS authorities to subordinate agencies, including CDC, so they may legally carry out the many activities of the Department. When such a delegation occurs, the HHS Secretary may nevertheless continue to exercise the authority because the act of delegating does not divest the authority from the HHS Secretary.

- 1) Some HHS authorities that may be exercised during an influenza pandemic are not delegated (e. g., the authority for the HHS Secretary to declare a public health emergency under Section 319(a) of the PHS Act (42 U.S.C. Section 42 U.S.C. 247d) or are delegated to specific agencies other than CDC, although CDC may have a role in the execution of such authorities. Other HHS authorities are broadly delegated to component agencies of HHS, including CDC (e.g., the authority to conduct and support research under section 301 of the PHS Act (42





U.S.C. §241)). These authorities are described in the HHS Pandemic Influenza Plan, Appendix E. Refer to <http://www.hhs.gov/pandemicflu/plan/appendixe.html>

- 2) Sections 361-369 of the PHS Act (42 U.S.C. §264-272) which have been delegated to CDC and implementing regulations (42 C.F.R. Parts 70 and 71) give CDC broad authority to prevent the introduction, transmission, and spread of communicable diseases from foreign countries into the United States or possessions and from one state or possession into another. This authority specifically permits “apprehension, detention, or conditional release” of individuals to prevent the spread of specified communicable diseases, including influenza caused by novel or emergent influenza viruses that are causing, or have the potential to cause, a pandemic. Section 361(c) provides the basis for quarantine of persons arriving from foreign countries, while Section 361(d) authorizes quarantine of persons who engage in interstate travel. Under Section 311 of the PHS Act (42 U.S.C. §243), CDC has been delegated authority to request SLTT assistance in enforcing Federal quarantines, and provide SLTT authorities assistance in enforcing their quarantines. Customs and Coast Guard officers are legally authorized to aid in the enforcement of Federal quarantines rules and regulations under Section 365(b) of the PHS Act (42 U.S.C. §268(b)). CDC has also been delegated authority to authorize the care and treatment of quarantined individuals at public or private medical or hospital facilities under Section 322(c) of the PHS Act (42 U.S.C. §249).

b. Tasks to Subordinate Organizations.

Refer to Annex C (Operations).

c. Coordinating Instructions.

Numerous other Federal and SLTT statutes may apply to specific interventions that would be implemented to control a pandemic. A SLTT’s authority to compel isolation and quarantine within its borders is derived from its inherent “police power”- the authority of a SLTT government to enact laws and promote regulations to safeguard the health, safety, and welfare of its citizens. Federal agencies that may have key roles in addressing a pandemic, such as Departments of Homeland Security, Defense, Agriculture, Interior, and State, are governed in





their actions by a wide array of other statutory guidelines. In an influenza pandemic situation, CDC will coordinate its response efforts with these Departments as well as with HHS/OS.

4. SUPPORT SERVICES

Refer to Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

Refer to Annex K (Information Management).





ANNEX N (REPORTS AND PRODUCTS)

1. SITUATION

- a.** The Influenza Pandemic Threat: Refer to Annex B (Disease Intelligence).
- b.** Mission and Intent of Higher and Supporting Organizations: Refer to Base OPLAN.
- c.** Environment: Refer to Annex B (Disease Intelligence).

2. MISSION.

CDC employs specific reporting processes to receive and disseminate integrated influenza pandemic-related information throughout CDC during crisis situations.

3. EXECUTION

a. Concept of Operations.

An influenza pandemic response will require a high level of preparation, anticipation, flexibility, and coordination across the entire reporting spectrum. Accurate reports will be key to the achievement of situational awareness and successful implementation of CDC's comprehensive response to the influenza pandemic. The Incident Management System (IMS), coordinated from the Director's Emergency Operations Center (DEOC), will be the conduit for information to and from federal, state, local and tribal agencies, field teams, the Incident Manager, and DHHS. The Plans Section will provide the daily Incident Action Plan (IAP) and other reports to the Department of Health and Human Services (HHS) Secretary's Operations Center (SOC) and other federal agencies in accordance with applicable plans or as otherwise required. All reports provided to the HHS SOC will be cleared by the Incident Manager with appropriate input from subject matter experts if required prior to distribution.

b. Report and Product Processes.

Refer to Appendix 1 (Reports and Products Matrix).

Overall responsibility for all reports and products rests with the Incident Manager (IM). The IM will establish the timing, approve the contents of all reports and products, and retains the authority to direct resources to accomplish these important processes.



**1) Incident Action Plan (IAP):**

The IAP is intended to provide an update to the incident management staff on what has happened in the last 24 hours and focus the staff on tasks/objectives to be accomplished during the upcoming 24-hour period. When the DEOC is activated and in the response mode, the Chief of Plans is responsible for gathering information and assembling the IAP. The IAP is the primary incident management document and will normally cover a 24-hour operational period, usually 1700-1700. The IAP will include all appropriate maps, epidemiological graphs, synopsis of media stories, etc. Classified reports will be briefed and maintained within the Sensitive Compartmented Information Facility (SCIF). During events in which the DEOC is not activated a Situation Report (see ???) will be prepared, rather than the IAP.

2) Director's Morning Summary:

The Director's Morning Summary will be focused on updating the Director and CC Directors regarding the current situation, objectives, planning assumptions, activities that have occurred and the most up-to-date information possible. This daily briefing uses the Incident Action Plan as the source document for much of its contents. The Director's Morning Summary will be chaired by the IM. Additional attendees will be the JIC Lead, Chief Health Officer, OPS Chief and others as required and identified by the IM. The principle briefer for this update will be the Situational Awareness chief or designee. The Director's Morning Summary will include relevant portions of the Finance, Logistics, Operations, Planning (FLOP). The Director's Morning Summary should occur NLT 0900.

3) Director's Afternoon Update Summary:

This briefing mirrors the earlier Director's Morning Summary in format and purpose, but will be concise and include only those key developments or updates that have occurred since the earlier Director's Morning Summary briefing, including relevant portions of the FLOP. The Director's Afternoon Update Summary should occur NLT 1800.

4) Situation Reports:

Situation Reports summarize significant developments for quick reference of all CDC personnel responding to a pandemic event. Situation Reports will normally be prepared on a





daily basis, at the end of the work day, or at the same time each day. Normally these will not include detailed analysis, but will be quick snapshots of key happenings. Importantly, these will be transmitted to the field so that all deployed CDC personnel will be aware of these major events and be able to place their own work in the perspective of the overall effort. The Plans Chief is responsible for preparing the Situation Reports, with key input from the Operations Chief. During events in which the DEOC is not activated a Situation Report will be prepared, rather than the IAP.

5) Spot Reports:

Spot reports are alerts to decision-makers regarding fast-breaking developments and should be issued on an urgent basis during a pandemic crisis. Spot reports will be submitted to the IM for approval before dissemination. They will be brief in the interest of time, and generally restricted to a quick who, what, when, where, why, and how format, with minimal analysis. In most instances there will be Spot Report follow-up analysis in the subsequent Director's Morning Summary or Afternoon Update Summary.

6) Executive Decision Brief:

The purpose of the decision brief is to provide the Director a forum in which to make a key decision. The brief is focused on the specific decision and uses the Executive Decision Support Memorandum as the foundation for discussions. Discussion among leaders and input is key to the briefing. The briefing should always conclude with the request for a decision from the Director.

7) Long Term Analyses:

The primary purpose of the Long Term Analysis is to provide a wider more detailed context to CDC leadership on fast-moving events while helping those dealing with the day-to-day crisis maintain situational awareness. While these reports will also address breaking events in a pandemic, they may focus on broader or longer term implications of the event.. Long Term Analyses could be prepared either at the request of senior CDC executives or on the initiative of analysts with access to clarifying information. In all cases, the IM will monitor and supervise the process.



**8) Travel Briefings:**

A Travel Briefings are provided to CDC personnel traveling into suspected infected areas anywhere in the world. The briefing provides information concerning individual risk mitigation actions before, during and importantly after the travel to an infected area. The briefings are inputted by appropriate IMS agencies, with IM oversight. Personnel will be debriefed upon their return to update these reports for future staff deployments, and to obtain information for use in other disease intelligence products. It is particularly critical that these briefings be current, reflecting the latest information available from all sources.

9) Media Updates:

The JIC will provide public health information updates daily including breakdown of daily news media calls into to the Department of Media Relations some evaluation of key messages being used by the media, and potential media issues for the daily IAP. JIC should provide this report to the IM NLT 1600 hours daily.

10) Surveillance Data Reporting:

State Epidemiologists and SA Section Chief will report latest epidemiological information to the IMS Planning Section for inclusion in the IAP, NLT 1300 hours.

11) Field Reports:

Field report templates are designed to provide information to the IM and CDC Staff on a daily basis concerning field operations where CDC personnel have been deployed. Field Reports will be submitted to the IM and CDC Staff NLT 1300 hours.

c. Distribution.

- 1) The Incident Action Plan (IAP) will be reproduced in sufficient copies and provided to all supervisory personnel at the IMS Section, Branch and Unit Leader levels. Because of CDC's unique assets, information sources, and scientific expertise, the IAP will also be a valuable document for distribution to HHS/SOC. IAP reports provided to the HHS/SOC will be cleared by Incident Manager and applicable subject matter experts prior to distribution. The original IAP must be retained in the Documentation Unit.





- 2) The Director's Morning Summary briefing will be directed primarily toward supporting the Director and key advisers in their decision-making process, and in supporting their ability to carry out their daily duties and future planning in a well-informed manner.
- 3) The Afternoon Update Summary will be directed in a similar manner as the Director's Morning Summary.
- 4) Situation Reports will generally be given the widest distribution. All CDC personnel involved in combating the influenza pandemic worldwide should receive a copy, including in the field personnel. All Situation Reports provided to the HHS/SOC will be cleared by Incident Manager and applicable subject matter experts prior to distribution.
- 5) Spot Reports will go to CDC executive leadership. In addition, they will receive as wide a distribution as possible within CDC especially among personnel dealing with the crisis. All Spot Reports provided to the HHS/SOC will be cleared by the Incident Manager and applicable subject matter experts.
- 6) Executive Decision Support Briefs, because they are more narrowly focused by their nature, will normally be accorded a more restricted circulation, to the target audience, as well as to policy makers. Their wider dissemination should be only on a need to know basis. Executive Decision Support Memorandums will generally be accorded the same distribution as Executive Decision Support Briefs.
- 7) Long Term Analyses should be provided wide distribution within CDC and other USG policy makers in public health matters.
- 8) Travel Briefings are provided to all CDC personnel deploying to deal with pandemic-related events prior to their deployment to the field.
- 9) Media Updates are provided Media Updates are provided to public media outlets, including the internet, for the purpose of keeping the general public updated on public health information.
- 10) Surveillance Data Reporting information will be provided to the IMS Planning Section NLT 1300 hours daily.





11) Field Reports will be provided to the IM and CDC Staff (IMS Planning Section) NLT 1300 hours daily.

d. Tasks to Subordinate Organizations.

Refer to Annex C (Operations).

e. Coordinating Instructions.

See Appendix 1 (Reports and Products Matrix) to Annex N

4. SUPPORT SERVICES

Refer to Annex I (Support Services).

5. MANAGEMENT AND COMMUNICATIONS

Refer to Annex K (Information Management).

APPENDIXES.

1. Reports and Products Matrix
2. Sample Reports and Products





APPENDIX 1 (REPORTS AND PRODUCTS MATRIX) TO ANNEX N

Reports will be submitted to the IMS Planning Section by email, fax or phone.

Table 15: CDC Reports and Products Matrix					
Item	Lead	Purpose	Time	Internal to:	External to:
DCIR to Director	IM	Ensure the Director is in receipt of any & all DCIR reports	Immediate	CDC Director	
Incident Action Plan (IAP)	IMS Plans	Establishes goals and objectives for the next operational period and captures the daily activities	Daily	CDC Leaders	HHS/SOC
Director's Morning Summary	IM	Briefing to keep the Director & CDC decision makers informed on all important developments	Daily, NLT 09:00.	Director & CDC/CIOs	
Afternoon Update Summary	IM	Update Briefing to the Director and CDC decision makers on breaking PANFLU-related events	Daily, NLT 18:00	Director & CDC/CIOs	
Situation Reports	IMS	Summarizing significant developments for quick reference of all CDC staff	Daily, End of Day	CDC Staff & Field	HHS/SOC
Spot Reports	IMS	Alert items CDC leadership & staff should be aware of	Immediate	Director & CDC/CIOs	HHS/SOC
Executive Decision Support Brief	IM	Provide detailed information on a development in an event	As Needed	Director & CDC/CIOs	
Executive Decision Support Memo	IM	Written format for a Decision Support Brief	As Needed	Director & CDC/CIOs	
Long Term Analyses	IM	Focuses on broader or long-term implications of an event	As Needed	Director & CDC/CIOs	
Travel Summaries	IMS	For informing CDC staff being deployed abroad	As Needed	CDC Staff	
Media Updates	JIC	Provide Public Health Information	NLT 1600	CDC Staff	Public Media
Surveillance Data Reporting	State / SA	Provide latest epidemiological State information for IAP input	NLT 1300	IMS Planning	
Field Reports	Field Teams	Provide Daily Update on Field Operations to IM & CDC Staff	NLT 1300	CDC Staff & Field	





APPENDIX 2 (SAMPLE REPORTS AND PRODUCTS) TO ANNEX N

Following is a listing of Sample Reports and Products:

Tab A	Incident Action Plan (IAP)
Tab B	Director's Morning Summary
Tab C	Afternoon Update Summary
Tab D	Situation Report
Tab E	Spot Report
Tab F	Executive Decision Support Brief
Tab G	Executive Decision Support Memorandum
Tab H	Long Term Analysis
Tab I	Travel Summary
Tab J	Media Update Template
Tab K	Surveillance Data Reporting Template
Tab L	Field Report Template

NOTE: All Sample Report and Product Formats in Appendix 2 are for "EXAMPLE ONLY"





TAB A (SAMPLE INCIDENT ACTION PLAN – IAP) TO APPENDIX 2 TO ANNEX N

1. Incident Name Influenza Pandemic		2. Operational Period (Date/Time) From: 11/27 0800 To: 11/27 1700		3. Documents Attached	
4. IMS Position		4a. Staff Member		5. IMS Mailbox	
Incident Manager:		Phil Navin		IMS Incident Manager eocincidentmanager@cdc.gov	
Chief Health Officer		Dr. Stephen Redd		IMS Chief Health/Science Officer eocchiefhealthscienceofficer@cdc.gov	
Operations Section Chief		A. Ed Rouse B. Captain Ralph O'Connor		IMS Operations Section Chief eocopssectionchief@cdc.gov	
Planning Section Chief		A. Thomas Reynolds B. Clint Matthews		IMS CDC IMS Planning Section Chief eocplansectionchief@cdc.gov	
Situational Awareness Chief		Dr. Linda Neff		IMS CDC IMS SA Section Chief	
Logistics Section Chief		A. Toby Crafton B. Mark Hansey		IMS Logistics Section Chief eoclogsectionchief@cdc.gov	
Finance/Admin Section Chief		Mary MacDonald		IMS Fin & Admin Section Chief eocprocfinancechief@cdc.gov	
IMS JIC Lead		Von Roebuck		eocjicleadership@cdc.gov	
IMS Safety Official		Casey Chosewood		eocsafety@cdc.gov	
Duty Officer				eocreport@cdc.gov	
7. Current Situation/Threats: As of 0800 EDT The first potential case of H5N1 in a human in the U.S. was reported in Atlanta, GA, yesterday by the Georgia Division of Public Health (GDPH). On Nov 25, the GDPH Laboratory Branch processed a nasopharyngeal swab specimen from a patient hospitalized at Emory Hospital. The specimen tested positive for influenza A (H5) by RT-PCR at 1037 hours on Nov 26. The GDPH has requested CDC confirmation of their findings (pending) and assistance with a case investigation initiated on Nov 26. <i>CLASSIFIED INFORMATION/BRIEFING IS AVAILABLE.</i>					
8. Planning Assumptions: 1. Anticipate the test will be confirmed positive – results expected by 0900 hours today. 2. CDC must be prepared to recommend that the U.S. response level be elevated to USG Stage IV and implement strategies to impede further transmission.					
9. Planning Objectives: 1. Prepare to activate full DEOC – identify and roster personnel. 2. Mobilize case management teams to further assist GDPH and other states, if requested. 3. Activate pandemic plans across all levels. 4. Update classified/unclassified information and event briefings. 5. Prepare to advise HHS on limiting non-essential domestic travel & increased border / port screening. 6. Plan deployment of diagnostic reagents for pandemic virus to all laboratories. 7. Plan deployment of antiviral treatments for targeted antiviral prophylaxis, as indicated. 8. Validate communications capabilities with HHS/FEMA and ensure communications with the CDC and Georgia leaders, public health, emergency management officials, and the media.					
10. Work Assignment Special Instructions (if any): Planning Objective 1: (COTPER/OPS) Deploy team to assist GA Div of PH, in obtaining full case history and in quarantining those potentially exposed including students and hospital staff.					
ICS 202 – CDC		Prepared by:			





**TAB B (SAMPLE DIRECTOR'S MORNING SUMMARY) TO APPENDIX 2 TO
ANNEX N**

Director's Morning Summary Briefing

Agenda: IAP Highlights

- Current Situation
- Objectives
- Planning Assumptions
- Current Activities
- Other developments

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**TAB C (SAMPLE AFTERNOON UPDATE SUMMARY) TO APPENDIX 2 TO
ANNEX N**

Afternoon Update Summary Briefing

Agenda: "UPDATES"

- Current Situation
- Objectives - Changes
- Current Activities
- Other developments



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TAB D (SAMPLE SITUATION REPORT) TO APPENDIX 2 TO ANNEX N

CDC SITUATION REPORT

1. Report Date:	2. Report Time:	3. Operational Period (Date/Time)
28 Nov 2006	1700 hours	271700 Nov 2006 to 281700 Nov 2006
4. Update on Current Situation / Threats		
5. Planning Assumptions Status / Changes		
6. Planning Objectives Status / Changes		
7. Work Assignments & Test Outcomes		
8. Status of Deployed & Pending Resources		
9. IM / Director's Narrative		





TAB E (SAMPLE SPOT REPORT) TO APPENDIX 2 TO ANNEX N

FROM: (JFO, INCIDENT NAME)

TO: DHS/IAIP/NOC

INFO: OPERATIONAL CHAIN

C L A S S I F I C A T I O N L E V E L (UNCLAS, FOUO, C, S, TS, TS/SCI)

SUBJECT: URGENT CDC SPOT REPORT

1. OCCURRENCE//

• **DATE OF URGENT OCCURRENCE//**(Date in MMDDYY Format)//

• **TIME OF OCCURRENCE//**(Time in HHMM Format)//

• **LOCATION//**(location in clearest possible short description)//

2. TYPE OF OCCURRENCE/ (In short, plain language, what happened?)//

• **RELATED TO JFO MISSIONS?//**(Yes or No—Is this directly related to the incident for which the JFO was established?)//

• **NARRATIVE//**(Describe what happened – WHO/WHAT/WHERE/WHEN/WHY/HOW.)//

3. IMMEDIATE JFO ACTION/ (Action being taken immediately by the JFO – don't wait; follow-up with a detailed SITREP later containing full details of plan of action.)//

4. APPARENT TERRORISM NEXUS// (Yes or No – does the occurrence appear to have a terrorism nexus?)

5. THREATS AND CAUSAL FACTORS// (Short narrative text)

6. SPOTREP CONTACT/NAME/ Name of best POC in the JFO regarding the urgent occurrence) /
(Phone number of POC) / (E-mail address of mishap POC)//

7. SPOT REPORT ###





**TAB F (SAMPLE EXECUTIVE DECISION SUPPORT BRIEF) TO APPENDIX 2
TO ANNEX N**

Executive Decision Support Brief

Agenda:

- Introduction & Background
- Specific Response Required
- Key Assumptions & Facts
- Information Sources
- Analysis / Assessment
- Other Considerations
- Decision

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**TAB G (SAMPLE EXECUTIVE DECISION SUPPORT MEMORANDUM) TO
APPENDIX 2 TO ANNEX N**

1. Report Date:	. 27 Nov 06	2. Operational Period (Date/time) 11/27 1700 to 11/28 1700			
3. As of Date:	. 27 Nov 06	4. From Executive Requesting Memo: Incident Manager	5. To Section Preparing Memo: Situation Awareness		
6. Specific Response Required					
This document is intended to support CDC executive decision to deploy CDC resources to Ukraine.					
7. Key Assumptions and Facts Bearing on Issue					
..					
8. Information Sources	Reliability Rate				
	Very High	High	Medium	Low	Very Low
WHO	YES				
..		..			
..			..		
..				..	
9. Analysis/Assessment					
EXECUTIVE SUMMARY – UKRAINE, RUSSIA, EUROPE					
Topic Page #					
1. Executive Summary					
2. Medical and Public Health Risk Assessment					
<ul style="list-style-type: none"> Situational Awareness Influenza Pandemic Assessment Infectious Disease Risk Assessment Environmental Health Risk Assessment In-country Medical Assets (hospitals, etc.) Medical Countermeasures 					
3. Security Assessment for Ukraine					
4. Recommendation/Decision					
5. Where to Get Additional Web-based Information / In-country Contacts					





TAB H (SAMPLE LONG TERM ANALYSIS) TO APPENDIX 2 TO ANNEX N



Weekly

June 16, 2006 / 55(23); 648-653

Update: Influenza Activity --- United States and Worldwide, 2005--06 Season, and Composition of the 2006--07 Influenza Vaccine

During the 2005--06 influenza season, influenza A (H1N1), A (H3N2), and B viruses circulated worldwide. In the United States, influenza A (H3N2) viruses predominated overall, but influenza B viruses were isolated more frequently than influenza A viruses late in the season. Influenza activity in the United States peaked in early March, and the number of pneumonia and influenza deaths did not exceed the epidemic threshold. Worldwide, influenza B viruses were the most commonly reported influenza type in Europe; influenza A (H1N1) and influenza B viruses predominated in Asia. Through June 13, 2006, outbreaks of influenza A (H5N1) viruses (avian influenza) among migratory birds and poultry flocks were associated with severe human illness or death in 10 countries (Azerbaijan, Cambodia, China, Djibouti, Egypt, Indonesia, Iraq, Thailand, Turkey, and Vietnam). This report summarizes influenza activity in the United States and worldwide during the 2005--06 influenza season and describes composition of the 2006--07 influenza vaccine.

c) United States

The national percentage of respiratory specimens testing positive for influenza and the proportion of outpatient visits to sentinel providers for influenza-like illness (ILI)* peaked in early March 2006. Influenza A (H3N2) viruses were most commonly isolated overall, but influenza B viruses were more frequently identified than influenza A viruses during late April and May. A small number of influenza A (H1N1) viruses also were identified.

d) Viral Surveillance

During October 2, 2005--May 20, 2006, World Health Organization (WHO) and National Respiratory and Enteric Virus Surveillance System collaborating laboratories in the United States tested 139,647 specimens for influenza viruses, and 17,414 (12.5%) were positive ([Figure 1](#)). Of these, 14,093 (80.9%) were influenza A viruses, and 3,321 (19.1%) were influenza B viruses. Among the influenza A viruses, 5,661 (40.2%) were subtyped; 5,231 (92.4%) of those were influenza A (H3N2) viruses, and 430 (7.6%) were influenza A (H1N1) viruses. The proportion of specimens testing positive for influenza first exceeded 10% during the week ending December 24, 2005 (week 51), peaked at 23.0% during the week ending March 11, 2006 (week 10), and declined to <10% during the week ending April 29, 2006 (week 17), for a total of 18 consecutive weeks during which more than 10% of specimens tested positive. Peak percentage of specimens testing positive for influenza ranged from 23.2% to 41.0% during the preceding five influenza seasons, and the peak occurred during early December to late February ([1](#); CDC, unpublished data, 2006). Also during the preceding five seasons, the number of consecutive weeks during which more than 10% of specimens tested positive for influenza ranged from 11 to 15 weeks (CDC, unpublished data, 2006).



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TAB I (SAMPLE TRAVEL SUMMARY) TO APPENDIX 2 TO ANNEX N

Travelers' Briefing Health Notice

Outbreak Notice

Human Infection with Avian Influenza A (H5N1) Virus

Advice for travelers

This information is current as of today, September 14, 2006, 08:58:35 AM

This notice initially released: September 23, 2005

Avian influenza A (H5N1) viruses usually affect wild birds but have infected and caused serious disease among poultry, such as chickens. Human infections with H5N1 viruses are rare, but have also occurred in several countries since 2003. For a current list of countries reporting outbreaks of H5N1 virus infection among poultry and/or wild birds, view [updates from the World Organization for Animal Health \(OIE\)](#). Cumulative numbers of confirmed human cases of avian influenza A (H5N1) by country are available on the [World Health Organization \(WHO\) Avian Influenza website](#). An assessment of the [current situation](#) can be found on the Centers for Disease Control and Prevention (CDC) Avian influenza website.



Most cases of H5N1 influenza in humans are thought to have occurred from direct contact with infected poultry in affected countries. Contact with sick or dead poultry as well as with poultry that have no apparent symptoms should be avoided. Contact with surfaces that may have been contaminated by poultry feces or secretions should also be avoided. Transmission of H5N1 viruses to two persons through consumption of uncooked duck blood may also have occurred in Vietnam in 2005. Uncooked poultry or poultry products, including blood, should not be consumed.

CDC remains in communication with WHO and continues to closely monitor the H5N1 situation in countries reporting human cases and outbreaks among birds.

The public health threat of a pandemic arising from novel influenza subtypes such as influenza A (H5N1) will be greatly increased if the virus gains the ability to spread from one human to another. Such transmission has not yet been observed. However, a few cases of limited person-to-person spread of H5N1 viruses have been reported, with no instances of transmission continuing beyond one person.

H5N1 infections in humans can cause serious disease and death. A vaccine to protect humans against influenza A (H5N1) is not yet available, but a candidate vaccine is undergoing human clinical trials in the United States. The H5N1 viruses currently infecting birds and some humans are resistant to amantadine and rimantadine, two antiviral medications commonly used to treat influenza. Most of the H5N1 viruses tested have been susceptible to the antiviral medications oseltamivir (Tamiflu®) and zanamivir (Relenza®), but resistance has been reported. The effectiveness of these drugs when used for treatment of H5N1 virus infection is unknown. For more information about influenza antiviral drugs, see <http://www.cdc.gov/flu/avian/gen-info/avian-flu-humans.htm#antiviral>.



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TAB J (SAMPLE MEDIA UPDATE TEMPLATE) TO APPENDIX 2 TO ANNEX N

Example Update on Multi-State Outbreak of *E. coli* O157:H7 Infections From Fresh Spinach, October 6, 2006

Contact CDC

- 800-CDC-INFO
888-232-6348 (TTY)
cdcinfo@cdc.gov
- Report a Food borne Illness

NOTE: *This is the last planned Web update for this outbreak.*

As of 1 PM (ET) October 6, 2006, Friday, 199 persons infected with the outbreak strain of *E. coli* O157:H7 have been reported to CDC from 26 states.

Among the ill persons, 102 (51%) were hospitalized and 31 (16%) developed a type of kidney failure called hemolytic-uremic syndrome (HUS). One hundred forty-one (71%) were female and 22 (11%) were children under 5 years old. The proportion of persons who developed HUS was 29% in children (<18 years old), 8% in persons 18 to 59 years old, and 14% in persons 60 years old or older. Among ill persons who provided the date when their illnesses began, 80% became ill between August 19 and September 5. The peak time when illnesses began was August 30 to September 1 -- 31% of persons with the outbreak strain became ill on one of those 3 days.

Three deaths in confirmed cases have been associated with the outbreak. One was in an elderly woman from Wisconsin. Yesterday, Idaho confirmed that stool samples from a 2-year-old child with HUS who died on September 20 contained *E. coli* O157 with a "DNA fingerprint" pattern that matches the outbreak strain. Today, Nebraska reported the death of an elderly woman with an illness compatible with *E. coli* O157 infection who consumed raw spinach; *E. coli* O157 with the outbreak strain "DNA fingerprint" was detected in the remaining spinach.

Maryland is investigating a suspect case in an elderly woman who died on September 13 and had recently consumed fresh spinach. *E. coli* O157 was cultured from her stool, but "DNA fingerprinting" has not been possible.





TAB K (SAMPLE SURVEILLANCE DATA REPORT TEMPLATE)
TO APPENDIX 2 TO ANNEX N

TO BE PUBLISHED



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TAB L (SAMPLE FIELD REPORT TEMPLATE) TO APPENDIX 2 TO ANNEX N

FIELD REPORT TEMPLATE Send this report to fieldteam@cdc.gov	
NAME OF OFFICIAL OR TEAM LEADER REPORTING:	
LOCATION AND CONTACT INFORMATION:	
REPORTING PERIOD / REPORT # :	
SUMMARY OF MISSION/ OPERATIONAL ACTIVITIES/ OBJECTIVES:	
IDENTIFY PUBLIC HEALTH REPORTS AND DATA SETS FORWARDED TO CDC:	
SPECIFIC REQUESTS FOR IMMEDIATE ASSISTANCE/ POTENTIAL MISSION ASSIGNMENTS (next steps):	
DESCRIBE TODAY'S COORDINATION WITH LOCAL/STATE PUBLIC HEALTH SERVICES, DHHS FIELD STAFF and OTHER FEDERAL AGENCIES:	
DESCRIBE CDC FIELD TEAM ACTIVITIES COMPLETED TODAY:	
ADDITIONAL INFORMATION – ACHIEVEMENTS – SUCCESSFUL OUTCOMES:	
ANTICIPATED / EMERGING PUBLIC HEALTH ISSUES IN REGION (Not already Reported):	
UN-MET TEAM REQUIREMENTS / BARRIERS / PROBLEMS: A. Logistical needs (include status of PPE & Supplies): B. Resilience and mental health concerns: C. Safety concerns: D. Austere Conditions (Living or Working): E. Anticipated Staff Changes (next 48 hours) F. Other concerns:	
EXTRA SPACE FOR ADDITIONAL TEAM INFORMATION:	
REPORT OF ILLNESS / INJURY IN THIS TEAM: •	
PROJECTED AFFECT ON CONTINUITY OF OPERATIONS / STATUS OF COOP READINESS: •	
SUBMITTED BY:	





ANNEX O (ACRONYMS)

<i>ACF</i>	Administration for Children and Families
<i>ACIP</i>	Advisory Committee on Immunization Practices
<i>ADCS</i>	Associate Directors of Communications Science
<i>AFMIC</i>	Armed Forces Medical Intelligence Center
<i>AFRIMS</i>	Armed Forces Research Institute of Medical Science
<i>AHRC</i>	Atlanta Human Resources Center
<i>AHRQ</i>	Agency for Healthcare Research and Quality
<i>AI/AN</i>	American Indian/Alaska Native
<i>AO</i>	Area of Operations
<i>AOA</i>	Administration on Aging
<i>APHL</i>	Association of Public Health Laboratories
<i>APHT</i>	Applied Public Health Team
<i>ARC</i>	American Red Cross
<i>ARDS</i>	Acute Respiratory Disease Syndrome
<i>ASD (HA)</i>	Assistant Secretary of Defense for Health Affairs
<i>ASPA</i>	Assistant Secretary for Public Affairs
<i>ASPR</i>	Assistant Secretary for Preparedness and Response
<i>ATSDR</i>	Agency for Toxic Substances and Disease Registry





<i>BRFSS</i>	Behavioral Risk Factor Surveillance System
<i>BSL</i>	BioSafety Level
<i>BT</i>	Bioterrorism
<i>CAMICC</i>	CDC/ATSDR Minority Initiative Coordinating Committee
<i>CC</i>	Coordinating Centers
<i>CC/CO/NIOSH</i>	Coordinating Centers/Coordinating Offices/National Institute for Occupational Safety and Health
<i>CC/CO</i>	Coordinating Centers and Coordinating Offices
<i>CCEHIP</i>	Coordinating Center for Environmental Health and Injury Prevention
<i>CCID</i>	Coordinating Center for Infectious Diseases
<i>CCPERID</i>	China Collaborative Program on Emerging and Re-emerging Infectious Diseases
<i>CDC</i>	Centers for Disease Control and Prevention
<i>CDC/W</i>	CDC/Washington
<i>CHO</i>	Chief Health Officer
<i>CITGO</i>	CDC Information Technology on the Go
<i>CMRS</i>	Cities Mortality Reporting System
<i>CMS</i>	Centers for Medicare & Medicaid Services
<i>COCA</i>	Clinician Outreach and Communication Activity
<i>CCHIS</i>	Coordinating Center for Health Information and Service





<i>CoCHP</i>	Coordinating Center for Health Promotion
<i>COGH</i>	Coordinating Office for Global Health
<i>CONUS</i>	Continental United States
<i>COO</i>	Chief Operating Officer
<i>COOP</i>	Continuity of Operations Plan
<i>COP</i>	Common Operating Picture
<i>COTPER</i>	Coordinating Office for Terrorism Preparedness and Emergency Response
<i>CRA</i>	Countermeasure and Response Administration
<i>CSO</i>	Chief Science Officer
<i>DCIR</i>	Director's Critical Information Requirements
<i>DEN</i>	Domestic Event Network
<i>DEO</i>	Division of Emergency Operations
<i>DEOC</i>	Director's Emergency Operations Center
<i>DEPR</i>	Division of Emergency Preparedness and Response
<i>DEST</i>	Domestic Emergency Response Team
<i>DGMQ</i>	Division of Global Migration and Quarantine
<i>DHQP</i>	Division of Healthcare Quality Promotion
<i>DHS</i>	Department of Homeland Security
<i>DIA/AFMIC</i>	Defense Intelligence Agency/Armed Forces Medical Intelligence Center





<i>DOC</i>	Department of Commerce
<i>DOD</i>	Department of Defense
<i>DOD-GEIS</i>	DOD Global Emerging Infectious Surveillance and Response System
<i>DOI</i>	Department of the Interior
<i>DOL</i>	Department of Labor
<i>DOS</i>	Department of State
<i>DOT</i>	Department of Transportation
<i>DPSA</i>	Division of Partnerships and Strategic Alliances
<i>DRG</i>	Domestic Readiness Group
<i>DSLRL</i>	Division of State and Local Readiness
<i>DSNS</i>	Division of the Strategic National Stockpile
<i>EC</i>	Emergency Coordinator
<i>ECS</i>	Emergency Communications System
<i>ED</i>	Department of Education
<i>EIP</i>	Emerging Infections Program
<i>EIS</i>	Epidemic Intelligence Service
<i>EMS</i>	Emergency Medical Services
<i>EPI-X</i>	Epidemic Information Exchange
<i>ERC</i>	Emergency Response Coordinator





<i>ESF</i>	Emergency Support Function
<i>EUA</i>	Emergency Use Authorization
<i>FAO</i>	Food and Agriculture Organization (UN)
<i>FCO</i>	Federal Coordinating Officer
<i>FDA</i>	Food and Drug Administration
<i>FETP</i>	Field Epidemiology Training Programs
<i>FLOP</i>	Finance, Logistics, Operations, Planning
<i>FMO</i>	Financial Management Office
<i>FMS</i>	Federal Medical Station
<i>FPAT</i>	Finance and Procurement Accountability Team
<i>GDD</i>	Global Disease Detection
<i>GETS</i>	Governmental Emergency Telecommunications Service
<i>GISN</i>	Global Influenza Surveillance Network
<i>GOARN</i>	Global Outbreak Alert and Response Network
<i>GPS</i>	Global Positioning System
<i>H5N1</i>	Avian Influenza strain
<i>HAN</i>	Health Alert Network
<i>HCW</i>	Healthcare Worker
<i>HF</i>	High Frequency





<i>HHS</i>	Department of Health and Human Services
<i>HHS/OS</i>	Health and Human Services/Office of the Secretary
<i>HPAI</i>	Highly Pathogenic Avian Influenza
<i>HRSA</i>	Health Resources and Services Administration
<i>HSC</i>	Homeland Security Council
<i>HSPD</i>	Homeland Security Presidential Directive
<i>HUD</i>	Housing and Urban Development
<i>IAC</i>	Incident Advisory Council
<i>IAP</i>	Incident Action Plan
<i>ICLN</i>	Integrated Consortium of Laboratory Networks
<i>ICU</i>	Influenza Coordination Unit
<i>ICU</i>	Intensive Care Unit
<i>IEIP</i>	International Emerging Infections Program
<i>IEMP</i>	Integrated Emergency Management Plan
<i>IFA</i>	Immunofluorescence Antibody
<i>IFI</i>	International Financial Institution
<i>IHR-2005</i>	International Health Regulations-2005
<i>IHS</i>	Indian Health Service
<i>ILI</i>	Influenza-like Illness





<i>IM</i>	Incident Manager
<i>IMS</i>	Incident Management System
<i>IMS</i>	Incident Management Structure
<i>IMT</i>	Information Management Team
<i>IND</i>	Investigational New Drug
<i>INMARSAT</i>	International Maritime Satellite Organization
<i>IRC</i>	International Red Cross
<i>IRCT</i>	Incident Coordination Response Team
<i>ISD</i>	Immunization Services Division
<i>IST</i>	Incident Support Team
<i>IT</i>	Information Technology
<i>ITSO</i>	Information Technology Services Office
<i>IV</i>	Intravenous
<i>JFO</i>	Joint Field Office
<i>JIC</i>	Joint Information Center
<i>JOC</i>	Joint Operations Center
<i>JWICS</i>	Joint Worldwide Intelligence Communication System
<i>LNO</i>	Liaison Officer
<i>LOG</i>	Logistics





<i>LPAI</i>	Low Pathogenic Avian Influenza
<i>LRN</i>	Laboratory Response Network
<i>LST</i>	Logistics Support Team
<i>LUNA</i>	Laboratory User Network Application
<i>MDB</i>	Multilateral Development Bank
<i>MHT</i>	Mental Health Team
<i>MMWR</i>	Morbidity and Mortality Weekly Report
<i>MSF</i>	Médecins Sans Frontiers (Doctors Without Borders)
<i>NAMRU</i>	U. S. Naval Medical Research Unit
<i>NAS</i>	National Airspace System
<i>NATO</i>	North Atlantic Treaty Organization
<i>NBIC</i>	National Biosurveillance Integration Center
<i>NCA</i>	National Command Authority
<i>NCCDPHP</i>	National Center for Chronic Disease Prevention and Health Promotion
<i>NCHM</i>	National Center for Health Marketing
<i>NCIRD</i>	National Center for Immunization and Respiratory Diseases
<i>NCPDCID</i>	National Center for Preparedness, Detection, and Control of Infectious Diseases
<i>NCPHI</i>	National Center for Public Health Informatics
<i>NEDSS</i>	National Electronic Disease Surveillance System





<i>NEISS-CADES</i>	National Electronic Injury Surveillance System - Cooperative Adverse Drug Events Surveillance System
<i>NHRC</i>	Naval Health Research Center
<i>NIH</i>	National Institutes of Health
<i>NIMS</i>	National Incident Management System
<i>NIOSH</i>	National Institute for Occupational Safety and Health
<i>NMRC</i>	Naval Medical Research Center Detachment
<i>NNDSS</i>	National Notifiable Disease Surveillance System
<i>NOC</i>	National Operations Center
<i>NPHI</i>	Non-Pharmaceutical Public Health Interventions
<i>NPHIC</i>	National Public Health Information Coalition
<i>NPHRN</i>	National Public Health Radio Network
<i>NRCC</i>	National Response Coordination Center
<i>NREVSS</i>	National Respiratory and Enteric Virus Surveillance System
<i>NRP</i>	National Response Plan
<i>NSC</i>	National Security Council
<i>NSEP</i>	National Security Emergency Preparedness
<i>NVPO</i>	National Vaccine Policy Office
<i>NVSN</i>	New Vaccine Surveillance Network





<i>OASPA</i>	Office of the Assistant Secretary for Public Affairs
<i>OCONUS</i>	Outside Continental United States
<i>OCOO</i>	Office of Chief Operating Officer
<i>OCPHP</i>	Office of the Chief of Public Health Practice
<i>OCSO</i>	Office of the Chief Science Officer
<i>OD</i>	Office of the Director
<i>OEC</i>	Office of Enterprise Communication
<i>OFRD</i>	Office of Force Readiness and Deployment
<i>OGHA</i>	Office for Global Health Affairs
<i>OHS</i>	Office of Health and Safety
<i>OIE</i>	World Organization for Animal Health
<i>OMHD</i>	Office of Minority and Health Disparities
<i>OMH</i>	Office of Minority Health
<i>OMS</i>	Outbreak Management System
<i>OPA</i>	Office of Public Affairs
<i>OPDIV</i>	Operating Division
<i>OPCON</i>	Operational Control
<i>OPLAN</i>	Operation Plan
<i>OPS</i>	Operations





<i>OSEP</i>	Office of Security and Emergency Preparedness
<i>OSG</i>	Office of the Surgeon General
<i>OSHA</i>	Occupational Safety and Health Administration
<i>OSI</i>	Office of Strategy and Innovation
<i>OWCD</i>	Office of Workforce and Career Development
<i>PANFLU</i>	Pandemic Influenza
<i>PAO</i>	Public Affairs Officer
<i>PAT</i>	Preliminary Assessment Team
<i>PCR</i>	Polymerase Chain Reaction
<i>PFO</i>	Principle Federal Official(s)
<i>PFWO</i>	Preparing for Work Overseas
<i>PGO</i>	Procurement and Grants Office
<i>PHEP</i>	Public Health Emergency Preparedness
<i>PHIN</i>	Public Health Information Network
<i>PHLIS</i>	Public Health Laboratory Information Systems
<i>PHS</i>	Public Health Service
<i>PI</i>	Pandemic Influenza
<i>PLANS</i>	Plans
<i>PMP</i>	Portfolio Management Project





<i>POD</i>	Points of Distribution
<i>POE</i>	Port of Entry
<i>PPE</i>	Personal Protective Equipment
<i>PSI</i>	Pandemic Severity Index
<i>PWMS</i>	Preparedness and Workforce Management System
<i>RDF</i>	Rapid Deployment Force
<i>REDI</i>	Regional Emerging Disease Intervention
<i>RFA</i>	Request for Federal Assistance
<i>RFI</i>	Request for Information
<i>RNA</i>	Ribonucleic Acid
<i>RRCC</i>	Regional Response Coordination Center
<i>RSS</i>	Receive, Stage and Store
<i>RT-PCR</i>	Reverse Transcriptase Polymerase Chain Reaction
<i>SA</i>	Situational Awareness
<i>SAMHSA</i>	Substance Abuse and Mental Health Services Administration
<i>SARS</i>	Severe Acute Respiratory Syndrome
<i>SCIF</i>	Sensitive Compartmented Information Facility
<i>SHO</i>	Senior Health Officer
<i>SIPR</i>	Secure Internet Protocol Router





<i>SITREP</i>	Situation Report
<i>SLTT</i>	State, Local, Territorial and Tribal
<i>SME</i>	Subject Matter Expert
<i>SMO</i>	Senior Management Official
<i>SNS</i>	Strategic National Stockpile
<i>SOC</i>	Security Operations Center
<i>SOC</i>	Secretary's Operations Center
<i>SOP</i>	Standing Operating Procedures
<i>SPN</i>	Sentinel Provider Network
<i>STAFFDIV</i>	Staff Division
<i>STARRS</i>	Specimen Tracking and Results Reporting System
<i>TARU</i>	Technical Advisory Response Unit
<i>TREAS</i>	Department of the Treasury
<i>TSA</i>	Transportation Safety Administration
<i>ToR</i>	Terms of Reference
<i>TSP</i>	Telecommunications Service Priority
<i>UNICEF</i>	United Nations Children's Fund
<i>USAID</i>	United States Agency for International Development
<i>USAMRU</i>	U. S. Army Medical Research Unit





<i>US-CCPERID</i>	US-China Collaborative Program on Emerging and Re-Emerging Infectious Diseases
<i>USDA</i>	U. S. Department of Agriculture
<i>USG</i>	U. S. Government
<i>USNORTHCOM</i>	United States Northern Command
<i>VAERS</i>	Vaccine Adverse Events Reporting System
<i>VOCO</i>	Verbal Order of the Commander (Director)
<i>VTC</i>	Video Teleconference
<i>WHO</i>	World Health Organization

